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THE AUDUBON ANNUAL BULLETIN



PUBLISHED BY
THE ILLINOIS AUDUBON SOCIETY

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for the Protection of Wild Birds

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THE
AUDUBON ANNUAL BULLETIN
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FOR THE PROTECTION OF WILD BIRDS

CONTENTS

Prairie Chicken upon Nest.....	Frontispiece
Save the Prairie Chicken for Illinois.....	<i>Dr. Alfred O. Gross</i> 5
The Last Heath Hen.....	Photograph 7
A Call to Action.....	<i>C. W. G. Eifrig</i> 9
Frank Smith—Teacher.....	<i>Dr. Alvin R. Cahn</i>13
Afield with Frank Smith.....15
The Heron Invasion.....	<i>W. I. Lyon</i>17
Hérons Along the Des Plaines River.....	Photograph18
A Conference on Mosquito Abatement.....	<i>Jesse L. Smith</i>20
Editorial.....	<i>C. W. G. Eifrig</i>24
Birds and Agriculture.....	<i>R. J. H. DeLoach</i>25
The 1930 Season at Quincy.....	<i>T. E. Musselman</i> 29
Wallace L. De Wolf—Obituary.....	<i>Ruthven Deane</i>32
A Summer Retrospect.....	<i>Bertha T. Pattee</i>33
The Mud Lake Area.....	<i>Orpheus M. Schantz</i>35
Notes from Athens, Illinois.....	<i>Watson Hall</i>37
Bird Life of a Roadside Marsh.....	<i>Alfred M. Bailey</i>38

THE
AIMS AND PRINCIPLES
OF THE
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ARE

FIRST: To encourage the study of birds, particularly in the schools, and to disseminate literature relating to them.



SECOND: To work for the betterment and enforcement of State and Federal laws relating to birds.



THIRD: To discourage the wearing of any feathers except those of the ostrich and domestic fowls.



FOURTH: To discourage, in every possible way, the wanton destruction of wild birds and their eggs.



PRAIRIE CHICKEN UPON NEST

Photo by A. O. Gross
Courtesy of Wisconsin Conservation Commission

THE AUDUBON BULLETIN

1931

Save the Prairie Chicken for Illinois

(A Plea for Co-operation and Action)

By DR. ALFRED O. GROSS

Bowdoin College, Brunswick, Maine

In the early pioneer days the prairie chicken was abundant in favorable places throughout the Middle West, but today it is gone from much of its former range and there are mere remnants of the great flocks left in very restricted prairie sections. In Illinois it is represented by comparatively small numbers, chiefly in the northern and central sections of the state. This characteristic and most unique bird of our prairies, in a relatively short time, will be but a memory in Illinois unless all those interested in its existence rally at once to its aid.

In Wisconsin, the prairie chicken, though present in diminished numbers, still ranks as a very important game bird. The Research Bureau of the Conservation Commission of that state is sponsoring a scientific investigation which is yielding facts destined to be important in the conservation of the prairie chicken. There are many factors which are important in the control of the numbers of birds. Some of the existing conditions, such as adverse weather during the breeding season and parasites and diseases, are not subject to our control, but there are others, such as excessive hunting, lack of breeding areas, excess of predators, etc., in which man can do much to alleviate the adverse conditions.

It has long been recognized that the encroachment of agriculture on the feeding and breeding areas of the Middle West has been an important factor which has led to the diminution in the numbers of the prairie chicken. In Wisconsin, fortunately for the birds, there are thousands of acres in the great central plain which are totally unfit for agriculture, but which do provide an ideal environment for the prairie chicken. It has been proposed, and there is great probability of immediate action, that large areas of tax-delinquent lands will be bought by the Conservation Commission to be used as preserves to give absolute protection to the prairie chicken and other valuable birds which abound in those sections. Each preserve will be provided with feeding stations and the areas will be systematically improved in other ways to make them more attractive to the

prairie chicken. There are not comparable areas, at least in size, in Illinois, but no doubt a careful survey would reveal places where prairie chickens could be given special advantages and complete protection. Certain groups of farmers, especially in northern Illinois, have organized associations which have as one of their objectives the encouragement of game and other useful birds on their farms. This excellent practice has served to perpetuate the prairie chicken where otherwise it would not be in existence today. Much more of this kind of work could be done in Illinois, even if it is not practicable for the state to purchase land for the establishment of preserves.

In Wisconsin, one of the critical times in the life of the prairie chicken is during the severe winters, when the food supply of these birds is covered with snow and ice. The ground feeding grouse do not seem to be able to subsist on buds of trees above the deep snows to the extent that it is done by the hardier ruffed grouse, and hence at such times are severely pressed to secure a living. One of the most positive steps taken for the conservation of the prairie chicken by the state of Wisconsin has been the establishment of feeding stations in strategic locations throughout the prairie chicken country. In 1928-1929 experimental plots of ground ranging in size from a half acre to two acres in extent were planted with buckwheat and smaller amounts of sorghum, sunflowers and broomcorn. Half of the grain was left standing for immediate use as soon as it was ripe and the other part was cut, placed in covered shocks and opened up during severe weather conditions. It was not unusual, according to the wardens in charge, to see two to three hundred birds at a single station at one time. These plots have proven so successful that more than sixty stations were planted this year (1930) for use of the birds during the following winter. This past fall a devastating fire swept over thousands of acres of prairie in the central plain, destroying all of the cover and food wherever it raged. In addition, killing frosts in June and the excessive drought during the summer curtailed the usual supply of weed seeds, wild fruits and berries in the unburned areas. As a result of the combination of these adverse conditions the feeding stations were visited and ravaged by hundreds of hungry birds so early in the season that all of the available food was eaten long before the end of the year. An emergency was declared to exist and additional food supplies consisting chiefly of shocked corn and buckwheat and bushels of threshed grains in automatic feeders or hoppers have been supplied for the birds in the devastated areas. Sportsmen's organizations, such as the Izaak Walton League chapters, as well as individual sportsmen, are assisting the state in these feeding projects in an effort to preserve the prairie chicken for Wisconsin. The bird lover may insist that this is done merely because the sportsman wishes to kill. It is true that excessive and unrestricted hunting in the past has decimated the numbers of these birds and there are "killers" who think of game as merely so many birds to



THE LAST HEATH HEN

Photo by A. O. Gross

kill and fail utterly to respect the rights of others who value the birds in a different way. But the real sportsman is a conservationist and has done more constructive work for bird protection than many bird lovers whose chief contribution has been talk and sentiment without action. Furthermore, we may have many laws protecting birds but legislation is of little value without public opinion behind the laws placed on the statute books.

Therefore, in the conservation of the prairie chicken in Illinois we need the combined efforts of all concerned, whether it is the sportsman who seeks this splendid game bird as an objective for outdoor recreation, the bird lover who sees in it an object of great aesthetic value, or the ornithologist who is eager to preserve a unique species of great scientific interest. All of these groups have a common cause, the preservation of the prairie chicken. In Wisconsin it was the leaders of the sportsmen who imposed restrictions on the hunting of the prairie chicken and who were instrumental in having the season closed during the past two years when the birds were scarce. We need the sportsmen of Illinois to help us, and if they are approached in the right way will be just as eager as the bird lover and the ornithologist to see a permanent closed season on the prairie chicken in the state, when it is clearly understood that the birds are in danger of extinction.

We need to pull together if we are to save the prairie chicken of Illinois, from following the fate of its eastern relative, the heath hen, which today is on the brink of extinction. When the lone individual on Martha's Vineyard Island dies, its race will also die, and let this be a warning to all those who wish to see the prairie chicken continue on the list of living Illinois birds.



The Last of His Race

The photograph of the Heath Hen on the preceding page is a reminder that our game birds are steadily decreasing in numbers. Many species have woefully few individuals, and it is to be feared that many more will go the way of the Passenger Pigeon, Labrador Duck, Eskimo Curlew and the Great Auk. Drainage of marsh areas with the resulting decrease in nesting places seriously threatens the future of our wild fowl. Fur-bearing and game mammals are also in need of protection and our native landscape must be guarded carefully. Mr. Gross' picture depicts the end of the trail for one more species. It should serve as a warning. Can we save the few remaining Prairie Chickens in Illinois?

A Call to Action

By C. W. G. EIFRIG

President, Illinois Audubon Society

Is the Illinois Audubon Society doing as much good as it might? Are we as active and efficient as we ought to be? Not if we compare our activity with that of others who have similar aims as we have. Take, for instance, the Izaak Walton League. Their monthly organ continually reports onslaughts on the forces that would destroy our national heritage, our woods, rivers, lakes, and their inhabitants. In one place they open a fish hatchery for restocking the streams and lakes of the vicinity with fish (even though they want to catch them later on). In another place they succeed in saving a delightful, scenic spot from the despoiler, to have it made into a park or preserve of some kind. When necessary they work together with politicians to achieve their aims, and often they oppose and thwart them in some form of outdoor spoliation.

Let us learn from them. Let each member, wherever in the state he or she may be, look around for opportunities of doing a good turn for bird protection, whether alone or in league with similarly minded people. The sportsmen's organizations work overtime for the protection and propagation of birds, but only of such species that they want to hunt. They sometimes act as though other forms of wild life other than game birds and game animals hardly had any right to exist. They are almost feverishly active to introduce foreign game birds, even though these compete with, crowd out, and even destroy our native splendid wild fowl.

Let us learn from them. If they get in touch with politicians and legislators to further their own selfish or commendable ends, why not we? I would like to point out a few immediate objectives that we should try to attain before it is too late:

1. A closed season for the prairie chicken. This splendid natural monument, so plentiful when the pioneers first came into the state, and for years after, is in a sad way. Fifteen to twenty years ago it could still be found in certain spots within the city limits of Chicago, and many more within a radius of ten to twenty miles. Now these have all practically disappeared. The blame is to be put on the introduced ring-necked pheasant and the indiscriminate selling of thousands of hunting licenses. There are among our legislators lovers of the great outdoors and particularly of the birds. Will not one of them draw up and present to the legislature a law protecting the prairie chicken permanently or at least for ten years? And if a provision could be included to somehow limit the activity of the hunting-license grist mill it would be a splendid thing.

2. Similarly, the bobwhite or quail has been brought to the verge of extinction, or practically wiped out, over large parts of northern Illinois. The writer recently spent several days in Ohio, in fact, crossing it from west to east and back. He was charmed and delighted by seeing and hearing quail everywhere. The reason is that the legislature of the state, some years ago, despite the furious opposition of the sportsmen and other interested sources, placed this chubby little angel of our country-side on the song-bird list, thus automatically outlawing its shooting. Why should a small percentage of the population impose its will, for selfish motives, on the vast majority, and deprive the 90 to 95 per cent who do not hunt of the pleasure of hearing the cheerful call and seeing the intriguingly rotund form, a symphony in browns, of this most lovable bird? And then there is the economic side of it. Numerous stomach analyses show that it is one of the most valuable allies of the farmer in his perennial fight against insect and weed pests, that continually threaten our food supply. Should the farmer get no consideration? Dr. Judd estimated upon careful computation that the bobwhites of the two states of Virginia and North Carolina alone consume annually 1,341 tons of weed seeds, and 340 tons of insects. Among the insect part of their diet are included all the most destructive of our insect pests, such as the chinch bug, cotton worm, cotton boll-weevil, army worm, potato beetle, cucumber beetle, bean leaf beetle, and many others. Up to a hundred potato beetles have been found in the stomach of one quail. As an insect and weed seed destroyer it is worth its weight in gold to the farmer, and therefore to everybody. What a short-sighted policy to allow this valuable ally and cheerful companion to be so ruthlessly slaughtered for the pleasure of a relatively small part of the population? At least in the northern part of the state the bobwhite should be put on the protected list, and preferably over the whole state.

3. Also the mourning dove is disappearing in northern Illinois to an alarming degree. And how the crooning call of this gentle bird adds to the enjoyment of a perfect summer day! There we allow a piece of barbaric legislation to remain on the statute books to the disgrace of the state. In most states the dove is on the protected list, as it should be. We have an open season on it, beginning on September 1. As the dove breeds throughout the summer there are at this time numerous nests of it in which there are yet unfledged young, who have to perish when the parents are shot. If we are barbaric enough that we must shoot this lovely and lovable bird, we should at least fix the beginning of the open season a month later. Who will buttonhole a legislator in his vicinity and persuade him to take up the cudgels in such a worthy and humane cause? What legislator will come forward and sponsor any or all of these worthy objectives?

Other desirable goals are the establishment of bird preserves ere it is too late. These could at the same time be wild flower preserves and the saving of choice bits of our great outdoors, scenic nooks and corners, from despoliation. Therefore, such objectives give the opportunity to co-operate with wild flower preservation societies, friends of our native landscape, garden clubs, and the like. All such agencies and helpers should be made use of.

Many of our members are, undoubtedly, members of golf and country clubs, or at least have among their friends such who are members. There is a chance of having such grounds declared bird preserves, the caretakers instructed to keep off hunters, and have certain corners or the neighborhood of buildings planted up with trees and shrubs, that, besides being ornamental, at the same time produce berries and other fruit much sought after by birds. This has been tried successfully in several localities. Of course, we know that the killdeer and the prairie horned lark have already appropriated golf courses as their nesting domains.

Let us keep our eyes open, and if we notice that certain bits of favorite natural habitat of birds is threatened with spoliation at the hands of super-zealous or misinformed officials, such as forest preserve boards, park or drainage officials, let us get active before the harm is done, and try to prevent it. Often such officials are quite willing to do the right thing, if only their attention is called to it. Especially let us see to it that we save what little swamp land still remains. The swamp birds are the ones most sorely pressed by the taking away of their nesting habitats. Often the draining of a little swamp does nobody any good.

Let those able to give talks to school children, clubs, and societies do so. Others may be in position to send items, tending to keep the issue of bird protection and bird information alive, to local papers.

If all our members would consider themselves so many committees of one of their respective localities, no doubt much more would be achieved than is now the case. Please do not think, "Well, that is what we have our officials, our board of directors, for." They are working along such lines, but they cannot be everywhere in the state and know the precise time and opportunity for action in the several places. Furthermore, they are all extremely busy men, teachers and business men, who simply are not able to give more to this work than they are doing. They all gladly would, if they could. Therefore, let us all work together, pull together in the good cause, and the results of 1931 will be commensurate with our efforts, greater than ever before.



FRANK SMITH

Frank Smith—Teacher

By DR. ALVIN R. CAHN

Department of Zoology, University of Illinois

For practical purposes we may divide avian-minded persons, whom we term ornithologists, into three groups. These are the taxonomists, who count and measure; the field men, who observe and perhaps collect; and the teachers. The state of Illinois has been particularly fortunate in the number of her sons who reached prominence in the first two groups. One has but to mention the names of Nelson, Kennicott, Cory, Ridgway, Holder, Hess, to start the list. Great teachers of ornithology have been sadly few and far between, yet foremost among them I would place Frank Smith.

Born in 1857 at Winneconne, Wisconsin, he took up his first teaching duties in the department of mathematics at Hillsdale College, Michigan, and the results of his mathematical inclinations were ever present in his later work in zoology, as abundantly illustrated by the methodical care and precision of his contributions. In 1886 he took the chair of professor of chemistry and biology at Hillsdale, remaining there until 1892, when he went to Trinity College as instructor in biology for a period of two years. The fall of 1893 found him with the department of zoology of the University of Illinois, where his advancement through the academic ranks to that of professor in 1913, plainly bespeaks the recognition of his genius as a zoologist.

During his teaching years at the state university, Professor Smith organized and developed two important courses in the study of ornithology, one a beginning course intended to introduce the student to a field knowledge and the economic status of the birds of the Urbana region; the other an advanced course for those who desired to pursue further the study of birds. In all some 1,400 students came into these courses. His lectures were clear and happily organized, and his classes gratifyingly large and enthusiastic. To stress the quality of his training and the success of his methods, we need but to mention the names of a few recognized ornithologists who developed under his guidance: W. Elmer Ekblaw, who was a member of the Croker Land Arctic Expedition; Dr. Alfred O. Gross, field ornithologist for the Illinois State Laboratory of Natural History, whose contributions, many of them with Dr. Stephen A. Forbes, form a conspicuous milestone of progress in the pursuit of field ornithology; and T. E. Musselman, who in 1921 published one of the most complete catalogues of the birds of Illinois that we have.

Due to the fact that Professor Smith chose to establish himself as a national—yes, an international—authority on oligochaete worms and fresh

water sponges and hydroids, his published contributions to Illinois ornithology are few, but important. In 1911 he published the first study of the breeding of the double-crested cormorant made in Illinois, after he had studied for two years the breeding colony at Havana, establishing the first authentic breeding record for the state. In 1917 he published his paper on a correlation between the migratory flights of birds and certain meteorological conditions, in which he shows that, as a result of data compiled during the preceding fourteen years, both "first arrivals" and the "bulk" of arrivals in the spring are accompanied by approaching areas of low pressure with south winds. This important contribution was later enlarged and presented in somewhat different form (1921) for the more accessible and ready consumption in the schools of the state. To him, also, falls the honor of first recording the arrival of the European starling in Illinois, which event he announced in 1922. As this paper goes to press, the writer understands that Professor Smith is compiling the results of his more than twenty years of study of the phenomena of migration at Urbana, Illinois, a paper which bird students of the state will welcome heartily.

In the spring of 1925 Professor Smith retired as Emeritus Professor of Zoology, following a year of ill health. Now quite recovered, he and Mrs. Smith are residing at Hillsdale, Michigan, with, I can assure him, the best wishes and profound respect and affection of his many former colleagues and students.

Ornithological Publications by Frank Smith

1. A Migration Flight of Purple Martins in Michigan in the Summer of 1905. *Wilson Bull.* No. 62, 1906.
2. Advantages of Migration Records in Connection with Bird Study in Schools. *School Sci. & Math.*; March, 1907.
3. A Plan for a Co-operative Study of Bird Migration. *School Sci. & Math.*
4. Double - Crested Cormorants Breeding in Central Illinois. *Auk*. XXVIII:1:16, 1911.
5. The Correlation Between the Migratory Flights of Birds and Certain Accompanying Meteorological Conditions. *Wils. Bull.* 98:32; 1917.
6. Illinois Birds as Travelers. *Illinois Arbor and Bird Days*, Circ. 50; 1921.
7. The European Starling in Illinois. *Trans. Ill. Acad. Sci.*, XV:185; 1922.
8. Interesting Results from Bird Banding Activities. *Trans. Ill. Acad. Sci.*, XVIII:107; 1925.

Afield With Frank Smith

Not long ago a professor in one of the state universities west of the Mississippi said: "Professor Frank Smith has left a deeper imprint with his teaching of ornithology than any man I know."

However, only a student of his can wholly appreciate the extent to which the teachings of Frank Smith promoted interest in bird study. Many students entered the course to obtain "snap credits" and remained and repeated for sheer love of the man and his subject. His enthusiasm and influence was sufficient to induce the writer, then a freshman in the university, to rise at four o'clock every morning from the first of February to the first of June and tramp two miles to the "Forestry" so as to record the migration arrivals of the day. If it was raining, and it often was, so much the better, for those were our banner days for new arrivals, coming, like the rain, with the south wind, as so conclusively shown in Professor Smith's published articles.

Sunday mornings meant a four or five-hour tramp in the woods of Crystal Lake for Gross, then only a freshman, too, the Professor and myself. Coming home through the streets of the university town just in time for dinner we had to run the gauntlet of returning churchgoers. Our black, limp-leather-covered, gilt-edged Chapman Handbooks held piously in our hands looked not unlike a testament or hymnal, and while our consciences needed no salving, those of our friends were saved from shock. Many of his students owe not only their love of birds to his influence but his example and kindly counsel aided them in many ways. May he for many years enjoy his well-earned rest from teaching.

FRED S. LODGE, La Grange, Illinois.

Professor Frank Smith is not only a distinguished scientist and a great teacher but to his students he was also a real friend. It was Professor Smith who inspired my ambition to attempt a university education and I shall never be able to repay him for his encouragement and personal assistance during the entire time I was working my way through Illinois. His home was a place where his students were always sure of a welcome. It was there we went when we needed help and counsel and we never came away disappointed. Then, too, Mrs. Smith was a delightful hostess and she also had a deep interest in the boys. Her home-made fudge was famous to many generations of students. Only those who have experienced it can know what this hospitality and friendship meant.

Some of my fondest memories are of the daily early morning walks we took together to the "Forestry" and the longer trips to Crystal Lake on Sunday in quest of bird lore. I can picture as clearly as if it were yesterday

a certain well-weathered log lying on the high bank overlooking the lake. Between the log and the water was a densely-wooded ravine which was always teeming with bird life during the migration season. There we would sit side by side with our field glasses and compete for new additions to our bird lists. How his face would beam and his eyes twinkle when he caught the first glimpse of a new arrival. Often we spent hours there and after the species were exhausted he would patiently listen to our boyish plans and ambitions. I must admit his remarks were not always complimentary and I swallowed hard when he discouraged me from ever attempting to make teaching and ornithology a life work.

It was those delightful human contacts that endeared Professor Smith to all of us. It has made an indelible impression, and now after twenty-five years I am convinced the heart-to-heart talks such as those we had on that log at Crystal Lake have meant more than many of the courses required for a degree. We have long forgotten the dry facts we learned at the university, but the association with our teacher, Frank Smith, has left an influence and an inspiration that will never fade with the passing years. The best we can do is to pass along to others what he has given to us.

ALFRED O. GROSS, Professor of Ornithology,
Bowdoin College, Brunswick, Maine.

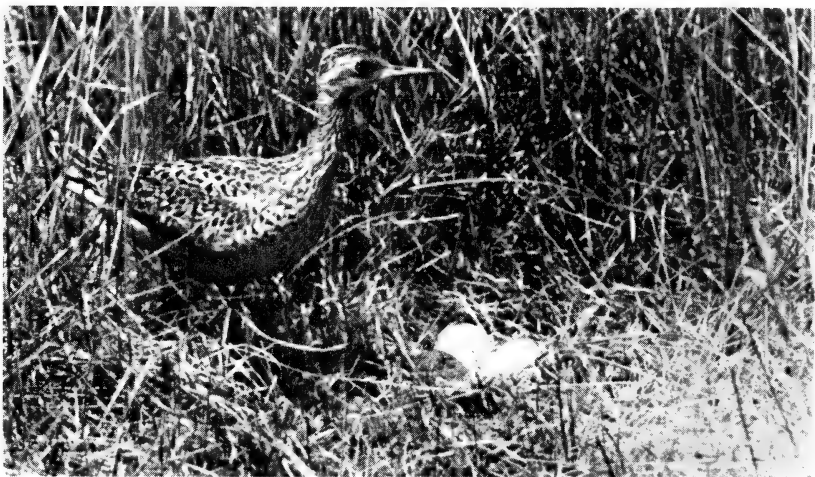


Photo by A. M. Bailey

BARTRAMIAN SANDPIPER AND NEST

The Heron Invasion

By W. I. LYON

During the first week of August our state game warden telephoned that there were a number of "White Cranes" on the Des Plaines river just southwest of Waukegan. This was unusual news, and a hurried trip was made to the designated spot. On arriving, one American Egret and twelve Little Blue Herons in the white coat were found feeding in the river. This was my first observation of these birds in Lake County. They both are a very familiar bird of the landscape of Florida, and it seemed like a bit of the South moved to the North. The only reasons that can be offered for this unusual invasion is that of the shortage of water in the rivers, in this very dry season we have just passed through.

The next day, while on a photographing trip, we "shot" twenty-one Little Blue Herons in white plumage and three adults in blue plumage with the one Egret in the center of the group and a few Teal in the foreground of our photograph, making a very interesting subject.

A week later, while observing the birds someone shot four Teal, and, acting as game warden, we arrested the guilty party. Later he was fined one hundred dollars for shooting out of season. The shooting seemed to drive the Herons away from that particular spot, and in driving about Lake County over fifty Little Blue Herons in the white coat were counted on Fourth Lake. There was report of at least a dozen on Third Lake the same day.

About the last of August we made a trip to as many lakes as possible, and observed fully one hundred Little Blue Herons in the white coat, but could not find the American Egret. September fifth, the Herons were still reported in the county. Letters from Wisconsin tell of Little Blue Herons as far north as Sheboygan.

The only previous record on Little Blue Heron about Waukegan, Illinois, is that of Stephen S. Gregory, Jr., a specimen collected on the Flats, August, 1925. The literature of this district gives the following: E. W. Nelson, *Birds of Northeastern Illinois—1877—Great White Egret*—a rather common summer visitant throughout Northern Illinois, generally arrives the last of July and departs in September. Two were observed near Evanston, Illinois, March 31, 1875. Breeds in Southern Illinois; perhaps in other parts of state.

Birds of Chicago Area, F. M. Woodruff—1907—The American Egret is either a visitant or summer resident in nearly every portion of Illinois. A pair were shot July 27, 1855, in Woodlawn, Chicago, now part of Jackson Park. In 1889 birds seen at Grand Crossing; May, 1895, bird and eggs collected at Kouts, Indiana; is said to be abundant all through the summer on the Illinois River below Peoria.



Photo by W. I. Lyon

HERONS ALONG THE DES PLAINES

Birds of Wisconsin, Kumlein and Hollister—1903—Twenty-five to fifty years ago the American Egret was a common bird on larger marshes and swamps bordering inland lakes and rivers; now only a very few visit Lake Koshkonong each year. Found breeding in colony of Great Blue Herons west of Two Rivers, Wisconsin, June, 1880.

Birds of Lake County, Illinois, H. K. Coale—1912—No records known of American Egret.

Little Blue Heron, immature in white plumage, not quoted by E. W. Nelson or F. M. Woodruff. Kumlein and Hollister, rare accidental straggler. Single individual shot on Root River, Racine County, August 24, 1848, by Dr. P. R. Hoy. A single wing of decomposed specimen found on Lake Koshkonong was preserved by T. Kumlein in the early fifties. Both were young birds in white plumage. These are believed to be the only records for Wisconsin. Not quoted by H. K. Coale.

Birds of Illinois and Wisconsin—Chas. B. Cory—1909—Little Blue Heron not uncommon in late summer in Southern Illinois. American Egret—rather common summer visitant to Northern Illinois.

North American Birds, Robert Ridgway—1900—Little Blue Heron, habitat north to Illinois. American Egret—nearly whole North America to Canada.

Birds of Indiana, A. W. Butler—1897—Little Blue Heron, summer resident in lower Wabash Valley. American Egret regular summer resident.

Life Histories, North American Marsh Birds, A. C. Bent—1926—Little Blue Heron casual records Illinois and Wisconsin. American Egret breeding range, Wisconsin (Two Rivers), Indiana, Wolf Lake (Kouts).

Mr. O. J. Gromme states that a party from the Public Museum of Milwaukee, Wisconsin, were out on a field trip to a small lake not far from Milwaukee, where they observed four immature Little Blue Heron feeding in the lake. While they were watching these birds, three of them suddenly took wing and flew away, while the fourth one seemed unable to get up from the water and was apparently held down. They rushed to the bird's assistance and found a snapping turtle had hold of its foot. The bird was rescued and banded, being the first of these species to be banded in Wisconsin. Mr. Gromme further reports that he is tempted to obtain snapping turtles for bird-banding purposes.

Another small group of immature herons was reported just a little north of Port Washington, Wisconsin.

"Items of Interest" of the Massachusetts Department of Agriculture, published August 6, 1930, by Dr. John B. May, states: "Indications point to another large flight of White Herons this summer. I have received reports of White Herons from more than twenty-five persons or places in New England, including every state east of Vermont. In most cases the birds were immature Little Blue Herons, though in some reports the American Egrets were identified."

A Conference on Mosquito Abatement

By JESSE L. SMITH

The campaign for mosquito abatement in areas about Chicago has been viewed with some apprehension by nature lovers generally. It seems that the work as often carried out has involved the destruction of beauty spots and the driving off of wild life from its native haunts. Drastic methods of drainage have often been followed without reference to ultimate consequences. Secluded areas which afforded homes for wild fowl have been opened up, the natural shelter stripped away, and through drainage and spraying of oil the areas made desolate. Blackened roadsides and burned spots in marshes and low meadows marked the work of the sprayer. Fair-minded observers report that as this work has progressed (it is now in its third year) the destructive zeal which seemed to characterize much of it at first has decidedly abated and is giving way to more enlightened methods. Disquieting reports of destruction of bird life continue to come in, however, and during the past year appeals have been made to the Audubon Society to make a study of the situation.

It should be explained that the work of mosquito abatement is carried on in certain specific districts organized under the provisions of a law passed by the legislature of the state of Illinois in 1927. The board of trustees of such districts are clothed with power "to take all necessary or proper steps for the extermination of mosquitoes, flies or other insects within the district, and subject to the paramount control of the municipal or other authorities, to abate as nuisances all stagnant pools of water and other breeding places for mosquitoes, flies or other insects within the district," etc. At this time there are three mosquito abatement districts in the Chicago area, the Des Plaines Valley district, the North Shore district, and the Lake Forest district, and other districts are contemplated. Each of the districts as organized includes marshy areas within its boundaries, but there are artificial conditions due to sewage disposal which vastly contribute to the propagation of mosquitoes. The seriousness of the situation amply justifies some form of abatement of the pest. In the belief that a study of the methods employed in the work might reveal the effectiveness of control methods which neither disfigure the landscape nor radically change its fitness for its native flora and fauna, the directors of the Audubon Society decided to invite to a conference the officials of the abatement districts mentioned. This conference, held at the City Club in Chicago on December 1, 1930, was interesting and valuable in many ways. As guests of the Audubon Society there were present Jens Jensen, president of the Friends of Our Native Landscape; Mrs. Charles B. Cory, president of the Illinois Chapter of the Wild Flower Preservation Society, and representatives of the mosquito abatement districts, including Dr. Spencer Fuller, president

of the Des Plaines Valley district, and J. Lyell Clark, engineer for that district; and Mr. Howard C. Phillips, representing the North Shore district. Dr. C. W. G. Eifrig, president of the Illinois Audubon Society, presided.

The problems of these districts were presented in detail and control methods discussed with reference to possible injury to wild life, and to birds in particular. Mr. J. Lyell Clark gave a general outline of the life cycle of the mosquito and the relative prevalence of different species, and described the control methods designed to abate the most troublesome species occurring in the Chicago region. It was brought out that there are twenty-one species to be reckoned with in the region, these being classified into three groups according to their breeding habits: the woodland group, the marsh and the domestic groups.

Mosquitoes of the woodland group have but one brood each season. In order to control this group the highly discolored brown water, overlying leafy woodland pools and stump holes, requires oiling once each year, about the middle of April.

Mosquitoes of the marsh group are travelers, several species being known to fly as far as three miles. A very common species of this group breeds in the casual water of prairie marshes and field pools following long wet spells in June and July. At such times 90 per cent of all mosquitoes disturbing us are *Aedes vexans*, a member of the marsh group. At such times this species becomes very annoying in the garden as it flies from its breeding place, the field pool, to seek shelter in yard shrubbery, where it may also secure a blood meal. The Mosquito Abatement district's drainage program, directed toward the eradication of this species of the marsh mosquito, is to extend over a period of five years and is now in its third year.

Mosquitoes of the domestic group, under ordinary circumstances, may be controlled by careful investigation of home premises and removal of water containers about the house and yard, together with the oiling of street catch-basins. However, there is one very important exception to this rule, i. e., the enormous production which takes place in large bodies of polluted water, such as the rivers and streams in the Chicago area. In our clean rivers and streams, in fact in these same rivers and streams beyond the zones of pollution, fish keep mosquito production down to a minimum, whereas in the polluted zones unrestricted mosquito production is so great as to cause what may be termed a mosquito scourge in certain districts.

Mr. Clark said that control measures directed against mosquitoes of the domestic group conflicted in no way with the presence and well being of desirable birds, fish and flowers, and that in point of fact the fight which is being waged by the Mosquito Abatement district for clean streams is in harmony with the aims of the Izaak Walton League and other groups

which desire to protect the natural flora and fauna of our streams. He contended that control measures employed against the marsh mosquito, drainage of casual field pools and temporarily wet prairie marshes, the drainage of water impounded by elevated sidewalks in real estate subdivisions, and the oiling of wet lots in villages, could not be considered harmful to bird life.

When it came to a discussion of abatement measures in woodland areas, Mr. Clark frankly criticized the customary methods of oiling and drainage as employed against the woodland group. He showed that it has worked in direct conflict with the most essential feature of bird conservation, namely, the protection of the nesting place. The favorite nesting place of many birds is in the dense growth of trees, shrubs and tall grasses of the typical woodland pool. Drainage destroys all. Oiling as ordinarily done burns plant foliage and if birds enter the oiled water their feathers are affected.

"Mosquitoes of the woodland group," quoting Mr. Clark, "may be controlled without destroying the woodland pool. The remedy as I discern it after having made many trips with those interested in bird conservation is not drainage or oiling, but fish control. Very few woodland pools are deep enough to hold water throughout the summer. In these, deep permanent water holes could be constructed similar to deep water holes for cattle. From the deep central fish hole small lateral ditches or fish avenues would lead to shallow parts of the pond. This method of treatment of our present temporary woodland pools would make them comparable in most respects, so far as mosquito production is concerned, to our clean rivers and streams and permanent ponds, where mosquito production is almost negligible, except the malaria-carrying species."

In the discussion that followed Mr. Clark's report, inquiry as to the actual injury to bird life because of the oil spray was raised. No one in the conference, it appeared, was able to cite specific instances of that sort. There was no first-hand evidence. It seemed probable that the alarming reports of bird mortality that had been given space in the papers were not based upon fact. However, it was not the desire either of the Audubon Society representatives or the mosquito abatement officials to dismiss serious charges of that sort without searching investigation. It was therefore agreed that for the coming season a record would be kept of the occurrence of dead birds and each specimen would be examined for evidence of injury from the effects of oil spray. The abatement officials volunteered to co-operate with officers of the Audubon Society in this work. The biologist of the New Trier High School and the nature study director of the Glencoe schools, both familiar with conditions in the North Shore Abatement district, have promised to examine all specimens brought into their laboratories and the Audubon officials will endeavor to enlist others in that and the other districts.

Alfred M. Bailey, director of The Chicago Academy of Sciences, reported testing the effect of the mineral spray on the feathers of water birds. These feathers, when dipped into clear water completely shed that water when they were taken out. Into the same water were then poured a few drops of mineral oil, a sample of that used in the mosquito eradication work, and feathers then dipped into the solution came out wet. The mineral seemed to dissolve out and destroy the natural oil which waterproofs the feathers. This shows that the plumage of water fowl venturing into oil-covered pools would become water soaked and the safety of the birds endangered. Whether birds attempt to drink from the pools that have been sprayed and are thereby poisoned, is still to be investigated.

The conference satisfied the representatives of the Audubon Society that the work of mosquito eradication in the Chicago area is now under most intelligent direction and that if close inspection of the work in the field can be maintained, danger to wild life will be greatly minimized. Wide observation and study of field conditions is still of great importance. As a practical outcome of the conference the president of the Des Plaines Valley district announced that a large woodland pool, chosen by Alfred M. Bailey, situated on the west side of Salt Creek, one-quarter mile south of 31st Street, near the intersection of Jackson Avenue and Park Road, is to be developed and stocked with minnows next spring. During mosquito breeding season it will be inspected for mosquito production at least twice a month. The Audubon Society has been invited to designate a representative to make regular observations as to bird life there and check the record of mosquito production. It is possible that joint observation trips can be arranged.



HORNED LARK

Photo by A. M. Bailey

Editorial

Ours is a time of amalgamation and co-operation. Behold the huge aggregations of capital in the industrial life of the nation, brought about to increase efficiency and gain, and to decrease expense and duplication of effort. Also other interests are pooling their forces and resources for similar purposes. Thus, sportsmen's associations and game protective societies are co-operating for their common good. The interests and agencies of conservation can only learn from them. The time for singlehanded effort in this field also seems to be rapidly passing. In fact, the co-operation of sportsmen's organizations to better achieve their purposes, makes more and more united action on the part of the forces of conservation necessary. Not that we deny the right of sportsmen to their chosen field of recreation. We readily concede their point of view. But some of them sometimes act as though other people and other interests did not have the same right, e. g., to look at the things in nature from an aesthetic point of view. Some of them would make the whole country one vast animal preserve, but only to later shoot these animals for sport. Some want to protect birds and introduce new ones, but only game birds that they can hunt afterwhile. Also certain industrial interests are apt to become ruthless destroyers of our great outdoors, if let alone. Think of the latest grave danger to certain seafoal, that of the oil refuse let into the ocean from ships. If this goes on unchecked many species of oceanic birds are bound to disappear from our ocean-side. To cope with the growing menace of defacement and destruction in the nature surrounding us, a correlation, combination and unification of the forces of conservation become increasingly necessary. For one thing, politicians ignore scattered efforts, but when large numbers combine and stand for something or oppose something, they speedily react, as the possible loss of numerous votes always has the strongest appeal for them, sometimes the only one. Let us set a unified front against the forces of destruction of our natural resources, whether they be mammals, birds, plants or anything else.

G. E.

Birds and Agriculture

By R. J. H. DE LOACH

The State of Illinois has an area of 35,867,520 acres of land. Of this about 90 per cent goes to make up the 225,000 farms in the state. The balance is in public lands, including parks, reservations and waterways. The farms of the state are estimated to have a total value of \$5,000,000,000, and to produce annually \$441,000,000 of crops and \$259,000,000 of live-stock.

It will thus be seen that the farms of the state have a high money value, and a large annual income. It becomes the responsibility of the entire citizenship to preserve and protect this natural wealth. The annual production of farm wealth is vitally influenced by wind and weather, and by the control of fungus diseases and insect pests. It happens that bird life is related to the control of insect pests and birds are, therefore, a most vital factor in agricultural success.

Do we know what is the bird population of the country or the various states? Do we know how many birds there are to the square mile or to the acre? Estimates have been made by many writers on bird life. The only official report we have seen is the following, which was taken from the 1920 edition of the World's Almanac, and from a report of E. W. Nelson, Chief of the Bureau of the Biological Survey:

"Early in the summer of 1914 the Biological Survey of the United States Department of Agriculture took initial steps toward a count of the birds of the United States for the purpose of ascertaining approximately the number and relative abundance of the different species. The preliminary count proved to be so satisfactory that the survey repeated it on a larger scale in 1915 and extended it over a still greater area in 1916 and 1917. The results obtained in 1914 have been surprisingly corroborated by those of succeeding years, and the work gives promise of producing, after a series of years, results that, in view of the recognized value of birds to agriculture, cannot fail to be of great value. It has been ascertained through these counts that birds in the agricultural districts in the Northeastern United States average slightly more than a pair to the acre, though in parts of the arid west and on the treeless plains this number dwindles to an average of half a pair, or even less, to the acre.

"By far the most abundant birds in the United States are the robin and the English sparrow, but several others are common enough to make their total numbers run well into the millions. The counts so far show that the most abundant bird on farms in the Northeastern states is the robin, next to this is the English sparrow, and following these are the cat-bird, brown thrasher, house wren, kingbird, and bluebird, in the order

named. The densest bird population anywhere recorded is near Washington, D. C., where a careful count showed, in 1915, one hundred and thirty-five pairs of forty species on five acres. Two city blocks, well furnished with trees, in the city of Aiken, S. C., harbored sixty-five pairs on ten acres. These high figures show the important results which will follow from careful protection and encouragement of birds."

On the basis of these surveys, we may estimate that there are about two wild birds per acre in the State of Illinois. This would make almost 70,000,000 birds in the state. This great army of servants goes forth each morning in search of insects and grass and weed-seed for their daily food. Their days are filled with unending effort to satisfy their appetites. That they do a real service to agriculture, no one who studies the question can doubt. To get a fair estimate of the service they render requires intensive study.

Before we calculate the value of birds, let us get some picture of the insect problem. It is well to keep in mind that "insects comprise fully fourth-fifths of the animal kingdom. Nearly 400,000 species have been named and described, and several millions are probably in existence." Of the losses due to insects many estimates have been made. A statement was made by the United States Department of Agriculture that the total loss to the farmers of the United States is approximately a billion dollars annually. This is a conservative estimate. Some of the heavier losses caused by insects are as follows:

Fruit trees	\$ 65,000,000
Forest trees	100,000,000
Cotton	250,000,000
Wheat	150,000,000
Corn	100,000,000
Vegetables	120,000,000
Hay	60,000,000
Miscellaneous (inc. sprays)	155,000,000

Estimates of such losses are only approximate, as additional yields may bring down prices to offset much of these losses, but based on current prices they may be taken to represent a fair value of produce consumed annually by insect pests.

Let us now estimate, if we may, just what relation birds sustain to this great host of insect life. On this subject we have definite figures from many sources. Weed observes that certain species visit the nest during the height of the brooding period, over 400 times daily, and take, each time, from 5 to 50 insects, or up to 400 insect eggs.

In the Yearbook for 1928, United States Department of Agriculture, we find the following: "To illustrate the destructive capacity of birds, it may be mentioned that from 3,000 to 5,000 insects have been found in a

single bird's stomach at one time." This certainly shows great capacity on the part of birds to control the insect situation, if left to do their work. In the 1911 Yearbook, it is reported that "Birds are recognized as the most effective natural enemies of the coddling moth. In some localities they destroy from 66 to 85 per cent of the hibernating larvæ, and their work in large measure accounts for the small spring broods of the insect." From the same report we learn that 36 species of birds are known to prey upon the coddling moth. These species belong to 13 families, the most important being the woodpeckers, titmice and sparrows.

Birds are busy in their work during the entire summer, early and late. As soon as insects are out in numbers sufficient to supply food for birds they begin their work of control. A fair estimate would be 120 days' work each year in the state by insect eating birds. They feed on insects a much longer time, but on account of the ebb and flow of that lowly life, the birds would average only about 120 days of full feeding time.

During this 120 days, it may be estimated that each bird would consume nearly 250 insects, or 10,000 insect eggs daily. The figures are many times this number for some days. The total daily consumption in the state would approximate 18,000,000,000 insects. Weed estimates that 150,000 average sized insects fill a bushel measure. On this basis they would eat in a year approximately 360 grain elevators full of 40,000 bushels each, or nearly $3\frac{1}{2}$ elevators full to each county in the state. In other figures, 2,000 bushels fill a freight car to capacity. Each elevator would contain 20 cars, so the insects consumed annually by birds would amount to three trainloads of 20 cars each in each county in the state. These insects, left unharmed, would multiply so fast that in a single season, would, in the natural course of events, produce over 50 times as many as the birds now eat.

This leads us to the general statement that the birds are the natural check on insect life, and form the balance of power in nature. Insects feed on plant life and the birds may easily be pictured as the preservers and defenders of plant life. They make it possible for us to grow economic plants. Birds are said to consume approximately 90 per cent of all insect life, and the State of Illinois spends annually about \$10,000,000 in its warfare on the other 10 per cent of insects.

Dr. F. E. L. Beal, the noted ornithologist, so long connected with the United States Biological Survey, says: "The true function of insectivorous birds is not so much to destroy this or that insect pest, as it is to lessen the numbers of the insect life as a whole—to reduce to a lower level the great flood tide of insect life. That this is the true relation of birds and insects should be inferred from the fact that the two have lived together for countless ages, and the balance of nature has been preserved, except as disturbed by the operations of man."

A certain per cent of insects seem quite necessary to the life of birds, and what is left may be considered to form the basis of a balance of power.

Without the birds, the insects would quickly defeat man, unless billions more were spent for spray machines and materials, and even then the outcome would be doubtful, as Hudson Maxim so eloquently pictured.

To preserve and protect the birds is to save the state millions of dollars annually. This is the most direct way of keeping insects in check. Many species of insects eat several times their own weight of plant life each day. They multiply rapidly. Insects, if left alone one summer, would, according to conservative estimates, consume over nine-tenths of all plant life produced that summer. To control plant production, it is therefore quite necessary to maintain a balance of power between bird and insect life.

Shall we not incorporate bird protection more completely and closely into our educational program? This is a necessity, and those who support the Audubon Society are contributing toward a campaign of education along this line. We should have a keener sense of responsibility and should put forth more efforts to make bird life comfortable. We should plant shrubbery, build bird boxes, and make a close study of just what we may do to insure safety during the breeding season, which should tend to increase the bird population of the state.

Birds have a long list of natural enemies, and it is not much credit to man that he ranks as the greatest enemy of wild birds. Chester A. Reed gives bird enemies in the order of their importance as follows:

(1) MAN; (2) The Elements; (3) Accidents; (4) Cats; (5) Other animals, birds and snakes.

Man should not only be a friend of the birds, but should help to lessen the dangers that lurk along their pathway. Man should help to make bird life easier and more comfortable, as well as safer. Education and constant publicity will help to accomplish this end.



WHERE BUGS AND WORMS GO

Photo by A. M. Bailey

The 1930 Season at Quincy

By T. E. MUSSELMAN

1930 has been a great old year for Western Illinois. During the two weeks of subzero weather in January about fifty Quail were banded. Mortality among them was very great. Most birds were so weak they could not fly even when tossed into the air. A covey of five birds was found, in which four had eaten the grain-filled craw out of the fifth, which lay dead at their feet. Because of the summer drought the number of eggs in nests was small, and many young birds died because of no water in the creeks or ponds. The fall shooting consequently was poorer than in years. Among the banded Quail killed, one had travelled nine miles northeast, another six miles east, a third two miles south, and three were killed on the farm where banded.

During the heavy snow Pine Siskins, Redpolls, Purple Finch, and Goldfinches practically lived on the seeds gleaned from the frozen Osage Hedge Balls.

Horned Larks gathered by the hundreds about the cattle feeding troughs. Russell Davis, of Clayton, captured over one hundred at a single fall of the nets. All were banded, then released. Starlings are very much on the increase. A pair nested at Carthage, Illinois. Bluebirds arrived February 11, on the same wind with Robins and Killdeer. Meadowlarks arrived February 16, with a great increase in Kinglets and Juncos. Maples were in full bloom February 21, which date marked the first big flight of probably ten thousand Mallards and Pintails. February 22, Kingfishers are here. February 23, Dwarf White Trillium in bloom. First thunder and lightning. Many White Throated Sparrows. March 2, Great Horned Owls sitting on full complements of eggs. March 6, first Towhee. March 10, saw first Migrant Shrike, also a Female Northern Pileated Woodpecker. March 15, Flickers are here—mating. Phoebe and many little Red Bats are flying about the mouth of Burton Cave. Antiopa Butterflies are common. March 16, First Field, Chipping and Fox Sparrows, Bewick's Wren and Hermit Thrush. Tortoise-shell and Red Admiral Butterflies are sampling the pollen of the Hepaticas and Spring Beauties.

I find that Juncos sleep in abundance in the husks of the standing corn shocks, after the ears of corn have been removed. Hylas are chirping. Elms and cottonwoods are in bloom. March 21, First Martins—False Crowfoot in bloom. March 27, Great Blue Herons here. April 2, two nests of Wild Turkeys located on old game preserve across the river in Missouri. April 4, first Pieris Butterflies. First Hog Nosed Snake. Anemones, Violets, Purple Trilliums, Dog-tooth Violets in bloom. Water Cress is at its best—tall, crisp, tender. First turtle eggs.

April 6, Bluebirds are building. Found an Opossum with eight little possums in her pouch. Brown Thrashers are here and singing. April 7, received a five-foot Bull Snake. Young Great Horned Owls just hatched. Myrtle Warblers here. April 8, Shadbush and Dutchman's Britches in bloom. April 9—Everything today seemed to burst into bloom—fruit trees and wild flowers. April 10, Yellow-bellied Sapsuckers are doing their usual damage. Grasshopper Sparrows, and White Throats are singing in the meadows and brush. April 12, Swifts are back after their winter in Central America. Likewise Whippoorwills, Turnus and Skipper Butterflies are out. April 14—Saw my first Upland Plover in several years today.

A Western Burrowing Owl was killed at Hamilton, Illinois. The bird was stuffed by Mr. Earl Lambert of Carthage College, and is in the school collection. This is the second specimen killed near Hamilton this spring, the other was brought to me for identification. (I believe these constitute the first state records.) April 15, Red-headed Woodpeckers and Water Thrushes appeared over night. April 16, Bank Swallows arrived. April 17, House Wrens here—Little Gray Morel Mushrooms plentiful beneath the Elm trees. April 18, Yellow Violets, Sweet William, Jacob's Ladder blooming. Bluebirds have four eggs. April 19—The warm rain produced many Morel Mushrooms. Young Killdeer already out of nest—second crop of Coprinus Mushrooms here. April 23, first Rose-breasted Grosbeaks. April 24, Red Birds have nest and three eggs, body of nest made of newspaper, grapevine tendrils and bark. April 25—Saw a Mockingbird today. April 26, Bobolinks and Great Crested Flycatchers here. April 28, Baltimore Orioles, Catbirds, and Wood Thrushes here. Young Bluebirds in nest. April 29, Kingbirds here, together with Dickcissels and Yellow Throats. May 1, Spotted Sandpipers appeared today. May 2, Night Hawks, Wood Pewee, Warbling Vireos, and Hummingbirds came today. May 4, Papaws in bloom, also Yellow Star Grass and Showy Orchis. May 5, Prothonotary Warblers numerous. Stopped at White Hall High School and found a mounted White Ibis, killed near there on the Illinois River, about ten years ago. This is interesting, as other records seem somewhat dubious. (Complete data being secured.) May 8—Saw my first Brown Pelican on the Mississippi River. Worthen reported one at Warsaw years ago. As I have seen them many times on the Gulf and am thoroughly familiar with them, I am positive of the identification. May 10—Found a Marsh Hawk nest with five eggs. It had been plowed up, but the nest was reformed and the eggs placed in it. The mother returned to it, altho in the middle of a plowed field. May 11, Young Bluebirds ready to fly—Young Red Birds left nest—all were banded. The father bird does the greater part of the feeding. May 22, Wild Iris and Spiderwort in bloom. Blood Root seed pods breaking. These seeds are carried by black ants, because of edible sticky pulp about them and are thus scattered and planted.

June 2—Banded six young Sparrow Hawks. June 3, Blackeyed Susans and Cone flowers in bloom. Banded two young Barn Owls at Kinderhook, one of these, No. 496906, was recaptured on December 6, 1930, at Bassfield, Mississippi, and later released. June 8—A strange inspiration seized the Robins at 3 a.m. The moon had set fully an hour before. Suddenly, without provocation, twenty-five or more birds broke into song. The serenade continued for five minutes, then ceased. It was entirely dark. June 13—Found a tree nest of English Sparrows. The globe-like nest had a side hole entrance.

August 8—Many immature Little Blue Herons in white phase along the Mississippi.

September 17—A flock of fifty White Pelicans got confused by the bright lights of the Ball Park and for half an hour milled about, much to the confusion of the ball players and the amusement of the spectators.

September 25—We enjoyed an unusual flight of Franklin's Gulls, which are rarely seen along the Mississippi. Several were killed for identification.

September 29—A pair of Duck Hawks was killed while pursuing Coots, very rare stragglers here.

October 13—A Northern Pileated Woodpecker was taken within the city limits. A twenty-inch alligator was captured alive on a Mississippi River dyke above Quincy. October 17—A big duck flight went over—little hunting, however—those killed included three White-winged Scoters, Shovellers, Widgeons, Blue Bill, Green-winged Teal, Mallards, and a female Old Squaw. Swifts disappeared today. October 21—Had a beautiful Albino Lesser Scaup Duck brought to me for identification. Goose flight went over last night. One Blue Goose killed on a lower river bar, the rest were Canada Honkers and Lesser Snow Geese. Ducks unusually scarce this year. Hunters turn to Rabbits. They have given up the pursuit of these, after the development of seven distinct cases of Tularemia.



Photo by E. V. Komarek

WATER BABIES—YOUNG OF PIED-BILLED GREBE

Wallace L. De Wolf

It was with a sense of deep regret that we have learned of the recent death of Wallace L. De-Wolf, artist and etcher, whose pictures have been exhibited in the leading galleries.

He was at one time a director of the Illinois Audubon Society and took an active part in the various lines of work.

He was especially interested in the Society's Annual Bulletin and from time to time generously contributed towards its welfare. A few years ago he moved to California, but always kept up his interests, a proof of which is now shown by a bequest to the Society of one thousand dollars.

RUTHVEN DEANE.

A Summer Retrospect

By BERTHA T. PATTEE

In looking back over a summer that was notably lacking in bird experiences, either at home or away, and one in which the spring migration brought fewer birds to the pool and woodsy tangle in our yard than ever before, there were still a few happenings that seem worthy of record.

Our crested flycatchers—which are the only birds that have ever occupied one of several Von Berlepsch style houses erected in our yard—were back again after two seasons' absence. They were as ever very interesting to watch from the screened south porch, not more than twenty-five feet from the tree on which the box is placed.

The pair first inspected the box on June second, and from then on was heard and seen every day. In about ten days we were sure that eggs were being laid, and soon it was evident that the female was sitting on them. The male sat on a small branch nearby, very watchful, and seemed always ready to "spell" her on the nest whenever she wished for a bit of sunshine or food. He was ever on the lookout for an intruder, and grew very fierce as the days progressed. A bluejay was savagely attacked several times, as were also some young flickers, who had to be severely punished before they understood that that particular tree was sacred ground, not to be touched. A redhead, too, was driven off.

The male's harsh call was heard in the distance, as he approached, but near the nest he was very quiet, except when he conversed in low tones to his mate, usually when he had just brought her a choice morsel to eat.

On the 27th there was unusual excitement about the nest, and we knew that the babies had arrived. Both birds began to bring in tiny insects and we could hear the young inside, when feeding. A week later the sweet little whistles of the young could be heard distinctly from the porch, and each day they grew louder. The insect food grew larger, too, and one day a big butterfly went in. On July 11th a little head appeared at the hole and he soon was able to perch on the edge. He had a lovely soft yellow breast, and it was most interesting to see him turn and stretch his wings, first one, then the other.

Next day, the 12th, the little fellow was at the hole early in the morning, but had flown while we were at breakfast to a nearby tree, where we discovered him later. Peculiarly there seemed to be but one offspring. The flycatchers have used this box three different seasons. The 1926 record also says "only one youngster," and the date of leaving the nest is the same, July 12th. Our flycatchers followed the family tradition, and each year we found the proverbial snakeskin when we investigated the nest after the birds had left.

The Wood Thrushes nested again on the parkway to the north, in a big elm tree, this time on a horizontal branch, reaching over the sidewalk, about twenty feet from the ground. So we were assured of lovely music for several weeks, and surely no song of summer is sweeter or more satisfying.

We could easily see the female sitting in the nest, and her mate was always on guard, except when he went on duty to give her a chance to come down for food or a cool bath in the pool. The young came off about June 15th, and later we saw two of them being fed in the yard. Last year a second brood was raised in early August, but this year we were not so fortunate as to have them.

One day, about the 25th of June, we discovered a little flock of chickadees in the "wild patch." There were seven of them, two adult birds and five youngsters. Soon they were all bathing in the upper and lower basins of the pool, and a very cunning sight it was to watch them. We were filled with curiosity to know where in the neighborhood they had nested, and was this pair the one that had come to our feeding shelf and suet tree all winter?

Almost no grosbeak singing came to our ears this past season, and we missed it greatly. Later I found that a friend of mine not more than five blocks away had entertained a large family of these beautiful birds for weeks, altho she had not located the nest.

Our most unusual visitors were a pair of woodcocks. During the exceptionally dry weather in the latter part of the summer, these birds were frequently in our yard, most often in a secluded corner screened by shrubbery, where a compost heap of decaying leaves and grass offered a store of insects to their long probing bills. Sometimes at dusk they would appear on the open lawn, working at the edge of the border where the sprinkler had saturated the soil. At other times we would flush them when crossing the woody place near the pool.

It certainly seemed quite out of the ordinary to find these wildwoods birds in a populous suburb.

Not many humming birds came to our yard this year, but once in late summer in the Dunes, we had a veritable feast of ruby throats and fluttering wings; never, indeed, had we seen so many of these tiny creatures assembled in one spot. At a turn of the road near the old tamarack swamp, we came upon them, hovering over a great patch of jewelweed—dozens of them, dipping, darting, sailing in bewildering array. The caretaker of Dune Acres, who is stationed at this corner, said they had been there for weeks, so there had undoubtedly been some nests in that vicinity.

The Mud Lake Area

By ORPHEUS M. SCHANTZ

A Discussion of a Sheltered Bird Sanctuary as a Possibility in the Forest Preserve

In the selection of a possible Bird Sanctuary in the Cook County Forest Preserve, there are many things to consider that would need to be taken into account before a decision could be made. The preserves are visited by so many people on Sundays and holidays, so much of the shrubbery has been destroyed and so many roads opened up, that it is difficult to find even a small area that is ideal for a sanctuary in all the thirty-three thousand acres that are included in the county preserves.

Within the county are three principal streams: the Des Plaines, Salt Creek and the North Branch of the Chicago river, along which are strips or belts of woodland in which formerly there were many nesting birds every summer. Every spring migration brings the birds back and there are still many that nest in the preserves. Many more, however, that seek peace and quiet have been forced to locate elsewhere. Food, shelter and proximity to water are always important in attracting birds, and all of these are to be found in the vicinity of Mud Lake, just east of the Des Plaines river, about half a mile south of Ogden Avenue, where it is crossed by the Des Plaines river. Not anywhere else in Cook County is there more variety of topography and plant life, or proximity of still pond, and active stream with the many plant associations that here abound.

Approaching from the north after leaving Ogden Avenue, the river path crosses highway No. 4, into a great open space, where there are many huge burr oak trees in which may always be found redheaded woodpeckers and flycatchers. In the spring of 1930 starlings were reported as nesting in several of them. Along the east bank of the Des Plaines are the customary water-loving bottom land trees, such as silver maple and ash, and on the higher banks oaks, hickories and black cherry with an undergrowth of wafer ash, wild crab, and hawthornes intermixed.

At the north end of the pond called Mud Lake, which each year becomes a bit shallower, is a concrete dike which has been raised by added earth until it effectually barred the Des Plaines from overflowing. On the right of the dike is the river, on the left an old beachline covered with a good stand of oaks. Along the dike have grown up several varieties of hawthornes, making an almost impenetrable thicket. Between the dike and Mud Lake is a marshy tract that is an ideal feeding ground for warblers, redwings, and many sparrows, and in early spring many migrating birds stop for several weeks because of the water and the abundance of food. The cardinal, Carolina wren, prothonotary warbler, rusty blackbirds, coots, rails, little green heron, swamp sparrows, redwings and numerous flycatchers may always be seen. In the nearby river, ducks, an occasional

osprey, and, in the rapids, killdeer, plover, yellow legs, and other water birds are seen every year. A few years ago the writer counted nine species of warblers feeding in a single large hawthorn. Overhead may be seen Bonaparte gulls, terns and herring gulls, at almost any time during the early days of May.

Where the river turns southwest away from the dike is a wide low bank sheltered from the winds, where in March, robins, bluebirds, tufted titmice, and chickadees find shelter. South-east of Mud Lake is a large hawthorn orchard in which warblers may always be counted on, because of the aphid which always infests the hawthorns. The section of land between Mud Lake and the Des Plaines river has been under the control of the Drainage Board, and for a number of years in this woods there was a group of buildings which, it was reported, was a place of questionable character, and which was given a wide berth by bird lovers. It is now understood that this "no man's land" has been transferred to the control of the Forest Preserve, and it is hoped that whatever was objectionable may be removed.

The region surrounding Mud Lake is directly in the path of the old transfer portage used by the French pioneers and trappers almost 250 years ago, and recently just west of Harlem Avenue and south of the Santa Fe Railroad, a marker has been erected commemorating the geographical history of the area. It would be quite fitting that in a section of the county which has so much of historical interest, a real Bird Sanctuary might be established as an additional monument. Not anywhere else in Cook County are conditions more ideal for both nesting and migrating bird life.

The Portage Tract has within its confines a unique plant association due to the sandy soil. The dominant trees following the old shore line are the oaks—black, Hill's, white bur, swampwhite, and red—according to elevation of the land. Southeast of Mud Lake are hackberry, elm, black walnut, white and black ash, silver maple, and a very unusual "orchard" of old hawthorns, mostly of the *mollis*-group. Bordering this orchard are thickets of wild crab and hundreds of the young hawthorns that through the browsing of cattle have grown into beehive forms and whose thorny bases make ideal nesting sites for thrashers, catbirds and sparrows. At the edges of Mud Lake are vigorous growths of cattails and pickerel weeds and in the deeper waters a few white water lilies and more of the yellow spatterdock flourish.

West of Mud Lake and between it and the dike are willows, black ash, white ash, hackberry, silver maples, many hawthorns, some sugar maples, with a rank growth of herbaceous plant life, wild ginger, nettles, violets, phlox, ragweed, etc., in season. This entire region of possibly a half mile square is an ideal bird oasis or stopping place during migration. Through here, no doubt, came the first cardinals, the Carolina wren and other birds that have widened their range. The writer has seen more birds in this region and north and south of it than in any other like-sized area around

Chicago. Flycatchers, vireos, sparrows of all sorts, various warblers come in swarms, because of the abundant insect life always infesting the hawthorns, wild crabs, etc. Among the rarer birds seen here are the osprey, Carolina wren, rusty blackbird, prothonotary and bay-breasted warblers. Terns and Bonaparte gulls are common in May. Ducks come in here and an occasional double-crested cormorant. The rails, the green heron and the night heron find refuge here. Recently much of the area south of the Santa Fe Railroad, which was watersoaked until late spring, and was covered with rank vegetation, has been drained by the mosquito abatement enthusiasts.

Notes from Athens, Illinois

By WATSON HALL

A record-breaking cold wave struck here at 1:15 p. m., October 17th. That morning a chimney swift was seen traveling South, apparently in company with several robins. Also in the morning I saw one of the largest flocks of grackles that I have ever recorded. This flock, as well as others, contained quite a few starlings. The latter are increasing rapidly, but so far have been seen only during the late fall and winter. In the afternoon a flock of thirty geese was seen and for the following ten days ducks and geese were seen at intervals. Press reports from Quincy, Beardstown and Havana stated that the waterfowl slaughtering was the best in years.

An interesting goose migration occurred on the 23rd. The evening before a flock of 30 Canada geese was seen and the next morning flocks of 17, 100 and 9. About 1:00 p.m. a flock of 19 blue geese and 16 snow geese went over, headed Southwest, and followed by flocks of 125, 125, 135, 150, 180 and 80. These flocks contained from 10 to 20 per cent blue geese and the rest were snows. They were a beautiful sight as they cut across the clear October sky. Other goose reports for that day were flocks of 25 (probably snow geese), 400 "low enough to see the gray and black markings," 52 "white and gray geese," which stopped at a small pond, and from which three were killed and a flock of "brant" which lit in a field and from which one was killed and a flock "very high, at dusk."

During this ten-day period perhaps 10,000 migrating crows were seen and many hawks, the abundance of the latter arousing some comment. This abundance of raptors continued throughout the fall. On December 23rd 15 hawks and five owls were seen. A goshawk, shot on December 6th, was carrying the carcass of a quail.

Perhaps 20 turkey vultures have been seen here this year, the first on June 12th, and the last on October 31st. Several residents said they were the first they had seen in years.

More upland plover than usual were seen during the fall migration.

Some hunters found bobwhite very scarce, but in this immediate vicinity they were fully as numerous as usual.

Bird Life of a Roadside Marsh

By ALFRED M. BAILEY

The Illinois prairies are dotted with small marshes of a few acres in extent, and many of these swampy places border highways. In the early spring they resemble small lakes, but as the vegetation grows, the water disappears from view, and an area of luxuriant vegetation is all that remains, to the casual observer, to set the area aside from its surroundings.

I had an occasion to observe the bird life of one of these little marshes two years ago while photographing birds, and was amazed at the wealth of marsh forms nesting so close to the main highway. Along Roosevelt Road, due north of Hinsdale, was a marsh of three or four acres with water of approximately two feet in depth. I made my first visit on May 5 and found the dead tules so dense that they hid the water. At the west end, however, there was a sheet of open water, and along the border, among the dead growths I found three nests of the Pied-billed Grebe, one



PIED-BILLED GREBE ON NEST

Photo by A. M. Bailey

of which contained eight eggs, while in the other two were seven eggs each. These nests were floating masses of vegetation, and the eggs were concealed beneath decaying marsh growths. I photographed the grebes during the next three weeks, and in that time I never saw an adult bird—except from my photographic blind. The old ones were so shy, they always slipped from their nests before I was near enough to see them.

In the rushes, near the open water, were several nests of Red-winged Blackbirds, and in half an hour's search I found six nests of the American Coot, with sets of eggs ranging from two to eight in number. An American Bittern was observed, standing motionless among the reeds, and I found it was upon its nesting platform and that there was one egg.

The rails started building their nests later in May, and several unfinished ones were observed May 16, but I was unable to determine the species, as there were no eggs. A few days later I found a nest of the Virginia Rail with two eggs (which was found abandoned on the next visit), and on May 29 I found another of the same species with nine eggs. Thirty feet away in a similar location, in the tules a few inches above the water, was a nest of the Sora Rail, which had been destroyed, the eggs having been kicked into the water. Muskrats are abundant in this marsh, and it is probable that one of these animals used the nest as a resting platform. This same date I found a nest of the King Rail with six eggs, a bulky platform in a dense stand of marsh vegetation.

The Least Bittern and the Long-billed Marsh Wren seem to nest later than their neighbors, for I located two nests of the former and six of the wrens during the middle of July.

These roadside marshes then, inconspicuous areas of low lands, are of great importance in that they furnish breeding places for many forms of bird life, and efforts to drain the swampy places should be discouraged.

During the season in this little pond which I learned to call "my marsh," as I visited it so many times, I observed no fewer than nine nests of the Pied-billed Grebe, six of the American Coot, two of the Virginia Rail, one of the Sora Rail, two of the King Rail, two of the Least Bittern, one of the American Bittern, twenty-five of the Red-winged Blackbird, and eight of the Long-billed Marsh Wren.

Times change. Two years have passed, and "my marsh" is no more. Civilization is ahead, and hurrying automobiles have gained fifteen seconds of time by the straightening of Roosevelt Road. A concrete highway now bisects the low area which was once the nesting grounds of more than one hundred pairs of marsh birds; the marsh has been drained except for comparatively small places, and "my" birds have had to move elsewhere.





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Nat. Hist. Survey

THE AUDUBON ANNUAL BULLETIN



Number 22
1932

PUBLISHED BY
THE ILLINOIS AUDUBON SOCIETY

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THE AUDUBON ANNUAL BULLETIN

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PUBLISHED BY THE
ILLINOIS AUDUBON SOCIETY
FOR THE PROTECTION OF WILD BIRDS

CONTENTS

Flashlights of Birds.....	<i>Tappan Gregory</i>	5
Color Sense in Humming Birds.....	<i>Lucy V. Baxter Coffin</i>	12
Is the Heath Hen Extinct?.....	<i>Alfred O. Gross</i>	13
The Cardinal Chorus.....	<i>Fred S. Lodge</i>	14
Filming for Birds.....	<i>F. R. Dickinson</i>	16
Our Newest Great National Park.....	<i>Orpheus Moyer Schantz</i>	19
Ben Gault Bird Sanctuary at Glen Ellyn.....		23
Conservation	<i>Henry B. Ward</i>	24
Taking Inventory	<i>C. W. G. Eifrig</i>	25
Island Bird Life.....	<i>W. I. Lyon</i>	29
The American Woodcock.....	<i>E. R. Ford</i>	31
A Visit to Selborne.....	<i>C. W. G. Eifrig</i>	33
A Rare Visitor in Evanston.....	<i>Bertha Pattee</i>	35
Nature Study at the Owasippi Scout Camp.....	<i>Gordon Pearsall</i>	36
Gathering Field Notes for Bird Paintings.....	<i>Walter Weber</i>	39
Whistling Swan at Waukegan.....	<i>W. I. Lyon</i>	42
What Is the Answer?.....	<i>James S. White</i>	43
The Indiana Audubon Society.....	<i>Sidney R. Esten</i>	44

FIELD NOTES

Barrington		45
Evanston Bird Club.....		45
Rockford		46
Carbondale	<i>Carl Gower</i>	47
The 1931 Season at Quincy.....	<i>T. E. Musselman</i>	48
Athens	<i>Watson Hall</i>	51
Port Byron	<i>J. J. Schaefer</i>	52
Birds Notes From Jo Daviess County.....	<i>Blanche and Bertha Cramer</i>	53
Birds at a Fish Hatchery.....	<i>Frances Dobson</i>	54
Rose-breasted Grosbeaks in Evanston.....	<i>Evelyn Campbell</i>	55
Nesting Cardinals	<i>Bertha Pattee</i>	56
Highland Park	<i>Bert Leech</i>	57
Notes on Bird Life in Lake County.....	<i>James Mooney</i>	57
Saw-whet Owl in Glen Ellyn.....		60
Chicago Region Christmas Bird Census.....	<i>James S. White</i>	61

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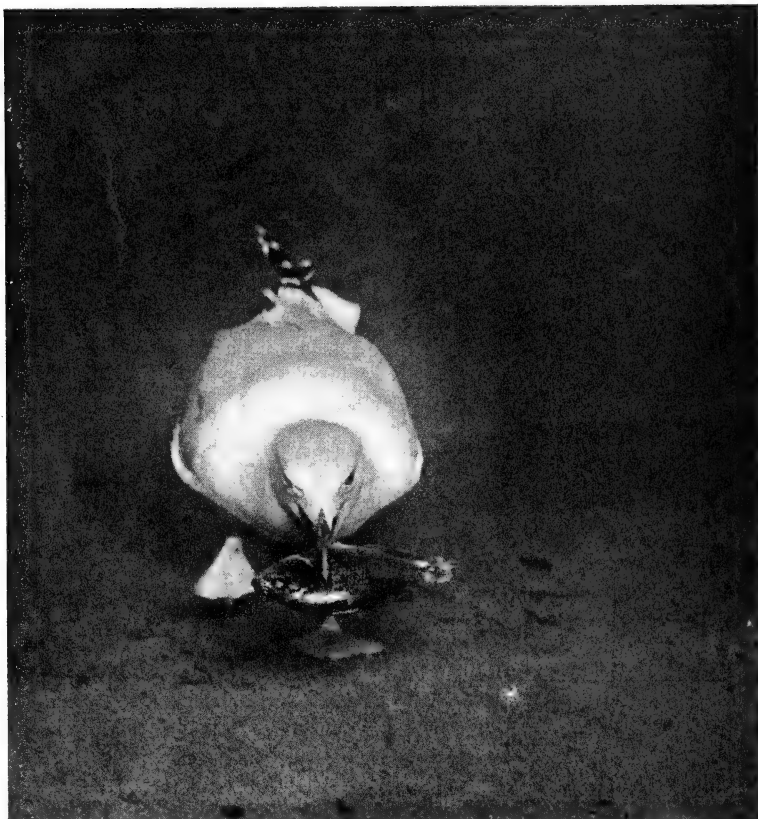
To work for their safety through law enforce-
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To interest children through the schools.



To establish bird sanctuaries in Illinois.



Photograph by Tappan Gregory

THE HERRING GULL

The silver-winged fliers of our lake shores are constantly on the alert for food, and they make ideal subjects for the flashlight photographer. What an astonished bird this fellow must have been when he exploded the flash!

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Flashlights of Birds

By TAPPAN GREGORY

The wind had died to a whisper and the surface of our favorite north woods lake was unruffled. No sound disturbed the unbroken stillness of a warm Summer night. The moon was dark and the light of the ranging jack gratifyingly effective in the starlight. Ahead, a stream murmured its way to the waters of the lake. At last the welcome sound of splashing riveted our attention. Deer in the offing! And more than one! Their dim outlines became visible and success seemed assured. But there was a complication. A long, dead log lay white and stark in our path. Not enough in itself to make trouble, but the unusual formation on the end of one of its scraggly, upstanding stubs caught the eye. A Great Blue Heron sleepily unwound his long neck, became alert and poised for flight. We dared not try to pass. He would surely fly. Too often had the measured swish of great wings and the hoarse squawk of an unseen traveler close overhead served notice that we might expect to find our deer uneasy. No time now to change course or temporize. Besides, a Heron was a worthy subject, infrequently encountered. We flashed him without regret and listened philosophically to the frantic surge of terrified deer through shallow water.

Soon the night was still again. We glided slowly into the stream and on up its quiet reaches, closely guarded by trees, canopied by their branches, through which the stars sparkled in the dark sky. The rays of the jack, lighting the overhanging branches from below, gave an eerie effect to the scene. Shadows crept in and out from shore and grew and disappeared before our eyes, uncanny to watch, as we followed the windings of the stream. Our Heron was ahead of us, perched, alert, on an overhanging dead limb. Nearby, a deer sloshed about, feeding. The temptation was too great. We waited for the chance to photograph deer and bird together and lost them both.

Several times on succeeding nights we found this friend of ours perched on his dead stub in the shallows at the head of the lake, but only once again did he wait for us.

We flashed one on a night when dark clouds hung low and rain threatened. He sat on a dead branch overhead, ghostly in the dim light of the jack. My mind also carries a very different picture, memorable in its contrast, of another heron on another day, wading in distant shallows, looking white in the brilliant sunshine, unhurried and at peace with the world, as he fished languidly for his noonday meal. The Great Blue Heron is the only bird I have ever photographed by flashlight from a boat.

Loons, of course, are frequently encountered. They seem to share our moods. They laugh, they cheer, and often, when there is peace and quiet about us, their "lonesome" cry is tuned to echo our own thoughts. Our light makes them restless, but the parent birds will brave its dangers to flutter and skitter close by in protection of their young. I might have flashed one of these little ones had I not been too engrossed with the antics of the old bird. The baby drifted right up to the boat so near to me that I could almost have touched it before it sought sanctuary under water. I only saw it just before it dived.

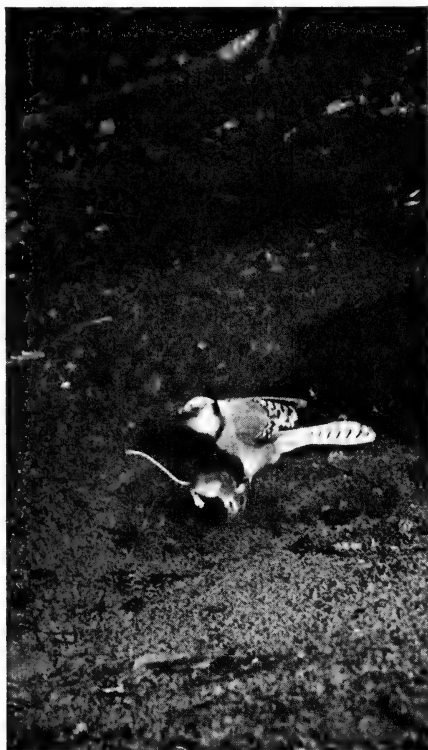
Loons belong to the northern night almost as surely as the Great Horned Owl, whose monotonous soliloquy complements so well the crackling of the northern lights. Occasionally, his shrill, raucous hunting call may make the night hideous and then, while the boat drifts idly, he may be watched high in a tall pine where he sits alert, ears erect, turning his head from side to side, opening wide his keen, strong beak—always well beyond the range of the camera.

Little birds—the Song Sparrow and the White-throat—may be startled into wakefulness by the flood of light from our jack and reward us with a few measures of sleepy song.

To be truthful, it must be told that flashlight photographs of birds taken from a boat or with a set camera have been largely accidental with me. The main objects of my efforts have been mammals, though bird pictures are always welcome accidents.

The set camera offers broader possibilities and greater variety because of its propensity for adding to the photographic "bag" by daylight. Almost any kind of bait may bring in a scavenger, furred or feathered.

On the shore of one of several small, inland lakes to which I am especially partial, there is a stretch of sand beach where much history of life in the animal kingdom is daily written. Here I set two cameras, hidden from view of each other by a stubby promontory. The weather was exceedingly hot and dry. My patience was tried and my ingenuity taxed to keep my bait fresh. Meat, mice, fish—all dried up almost overnight. Even crawfish seemed to lose their succulence. All manner of small animals played about and whisked over my wires. Red squirrels, chipmunks and mice left myriad tracks and sometimes tripped the flash. Songbirds flew into the wires. Always the result was the same—a blur on the negative.



Photograph by Tappan Gregory

BLUE JAY

boom of the flash at the set I had just left and looking up quickly saw the white smoke drift slowly up above the trees in a compact mass and dissipate as a vagrant breeze touched it.

No time was lost in a hurried return. Probably a squirrel, I thought, or chipmunk had skipped gayly across the trip-wire again. Certainly, such as they would not find rock bass irresistible. Either a pull on the bait or an accidental pressure on the wire connecting bait to trip would discharge the flash.

It was a pleasant surprise to see clearly etched, close to the bait, the long-toed, seven inch track of a bird. It must be that of a Great Blue Heron. Again our trails had crossed. Less fastidious, this one, than those seen seeking their meals fresh and wriggling. A fish was a fish to him, dead or alive.

None of the birds coming to my set has ever returned after the flash,

My apparatus requires a between-the-lens shutter and the one I use has a maximum speed of 1/200 second. This is much too slow to "stop" the motion of one of these fast-flying little creatures.

Herring Gulls circled about me as I worked and soon learned that it might be worth their while to investigate. Twice one firmly planted his broad, webbed feet in the sand and tugged at the rock bass so carefully arranged to attract a mink. They kept me busy rebaiting.

I came to the beach one morning on my usual rounds. The first set was untouched. The sun was well up but the air was still fresh and the lake quiet and it was pleasant to stand for a moment and contemplate. I moved on slowly. The second set also disappointed me but as I stood cogitating the next move, I heard the dull



Photograph by Tappan Gregory

GREAT BLUE HERON

advantage of to pick up a camera trap and place it trained on the hole, baited with a mouse. The chance for a fox under such circumstances is slim, but any chance is better than none and well worth a try.

Next morning I hardly dared look at the flashlamp to see if the trap had been sprung and the powder burned. But at sight of the charred remains of the powder box my hopes rose and the discovery of tooth or claw marks on the mouse and a sagging wire buoyed them further, though no fresh tracks appeared about the den. Why bother to solve disagreeable puzzles of this sort? Much better to enjoy the pleasures of anticipation until a session in the dark-room should substitute certainty for conjecture.

As it transpired, a Blue Jay had swooped upon the mouse and risen

so far as I know, to finish the meal interrupted by the discharge. In this they differ from many of the mammals.

I am not sure that much can be learned of the habits of birds from taking pictures in this way. Yet, every now and then a bit of interesting life history is recorded. I had never known before, of my own knowledge, that a heron might some time be willing to sample a dry, dead fish.

I learned, too, that the Blue Jay, always delighted, when opportunity offers, to gorge himself on nice, fresh birds' eggs, is not above stooping to taste a dead mouse.

I knew the location of a fox den and came to it one day to find at its mouth the foot of a rabbit recently killed. The remaining hours of daylight were hastily taken

with its prey in its claws before the tension on the wire closed the break in my electric circuit and detonated the charge of magnesium powder.

October came at last, with those sharp nights and clear, still invigorating days that are so characteristic of the north woods. The hardwoods were turning, the hillsides aflame with brilliant color, delightfully set off by the somber, restful green of the conifers. Beavers were cutting their winter food and storing it under water near their homes against the days when they would be frozen in.

On a still evening they could be seen swimming slowly, hidden among the leaves of a sapling top, to dive close to their house, carrying their burdens with them.

On the higher ground, above the lodge, were many trails and evidences of many busy nights of cutting.

There is something about a beaver's trail attractive to many different kinds of animals. Ruffed Grouse frequently use them. Perhaps on them travel is easier than elsewhere. When they are smooth and well worn, they give every appearance of being convenient and comfortable thoroughfares.

Here was a golden opportunity for beaver pictures. One good one was obtained and the next evening at six o'clock the flash was heard again. It was not possible to tell from the signs what had tripped it. The probabilities favored beaver, but it was a Ruffed Grouse instead, moving slowly down the beaver trail across which the light, nearly invisible wire was stretched. Unfortunately, the bird's head was turned away from the camera. That, however, is the fortune of war. It adds to the fascination of this sport that good pictures are difficult to obtain and come when least expected. One never knows in advance with any degree of certainty what the subject of any given shot will turn out to be, nor the character of the picture—so many little things may intervene to spoil the exposure.

It is not always, by any means, that Autumn brings fine weather in the woods. Sometimes the colors are drab, the sun seldom shines and rain falls day after day to dampen the spirits as well as the ground under foot and the leaves on the trees.

I headed for the woods in such a season when once again the principal photographic effort was for beaver pictures.

What had been a calm and friendly trout stream was now a raging torrent with ten feet of water rushing between its banks to Lake Superior.

A log habitually used by a bobcat as a crossing served its purpose no longer. Much of it was well under water.

On the opposite bank beavers had dammed a small creek. The situation looked promising. A short reconnaissance disclosed that a crossing could be made upstream over a tree fallen clear across the river and hanging well above the water. On the far side its branches complicated a landing only slightly. Exploration brought to light a well-used beaver trail ending with a short slide into the river.

It was not hard to transport and set up the apparatus, and results justified the choice of a site, though some difficulty was encountered from the continuous rain. The lens became clouded with moisture. Of course, a lens cannot function unless it is clear.

The ground by the river was low and swampy and the river trail partly under water. But it was interesting country. Here several times Canada Spruce Partridge were seen, comparatively rare birds for northern Michigan.

Still the rain continued and the river rose. There came a day, finally, when it was no longer possible to cross on the chosen tree. Too much of it was too far under water. Fortunately, an eight-inch Maple stood not far away.

As might be expected, no preparation had been made for extensive lumbering. There were several of us on hand with one small safety axe between us. Arduous labor followed and many blisters, but the tree fell as directed and lodged in the branches of the former bridge. Crossing it was a different matter. It swayed and dipped with every step. Returning, laden with twenty-five or thirty pounds of camera apparatus, was even more ticklish.

If you were to characterize our weather on that trip and guess as to the genus of bird to cross our trip wire, I think you would undoubtedly say "duck." And you would be right. A merganser, perfectly at home, as he had every right to be, waddled down the beaver trail and left his image on the plate.

Perhaps I have written too much of woods and weather and not enough of birds. I have tried to give just a brief picture of some of the ups and downs of the truly interesting and delightful practice of animal flashlight photography. You can see that it is more particularly adapted to mammals than to birds. It is about the only way that wild mammals of the smaller genera and species may be successfully photographed, while birds may be taken in daylight from blinds. They are mostly diurnal, the mammals nocturnal. But I am sure much could be done with birds by flashlight, which I have never tried, if the camera traps were set with that end in view. And no matter how they are set, some birds will always come; and when they do and your luck is in, your pleasure and satisfaction in your successful shots will grow and increase as they multiply and mellow.

The above article by Mr. Gregory opens a new field of photography for many of us. As the author has shown, there are always opportunities for flashlight pictures near at hand. We are indebted to Charles C. Thomas, publisher of Mr. Gregory's book "Deer at Night in the North Woods," for the use of the photographs of the deer, and to Bird Lore for those of the birds.



Photograph by T. Gregory and W. Hodges

ATTENTION!

The photographer of birds and mammals has, the year around, an open season; he may shoulder his pack and go to the out-of-the-way places to photograph the wary deer in its native haunts, or he may study the small forms of the forest preserves. Surely, the camera is the ideal weapon to be used on our wild animals.

Color Sense in Humming Birds

By LUCY V. BAXTER COFFIN

Mr. William Rowan, in his recent interesting book, "The Riddle of Migration," remarks that because of a lack in the structure of the eye, birds are probably not sensitive to color. From his studies, he doubts if they recognize violet or blue, but finds them as sensitive to yellow as is mankind.

In observing Humming Birds feeding, my conclusion has been they are entirely dependent upon color as a guide to food supply and that they are more sensitive to red than to other colors. However, on a high plateau in the Rockies, I came upon a great patch of Hare Bells (*Campanula Rapunculoides*), and over the blossoms were numbers of Humming Birds. Also, in my wild flower garden, the first flower in the Spring to attract the Ruby-throat is the Virginia Cowslip (*Mertensia Virginica*), which is a lovely blue.

The unfailing flower, though, with ever-satisfying food supply, is the wild Columbine (*Aquilegia Canadensis*). There are various beds of this about the place, and the Humming Birds fly with unerring wings from one to another, seeming to have a fixed route. At times they make a charming picture by lighting in a well-grown plant for a moment of rest, then continuing their course. The predominating color of these flowers is red. Tulips, Roses and Peonies are visited, although they have small honey content and are chiefly either pink or some shade of red. A vase of Tulips on the inner sill of a closed window caused a Humming Bird to pause on the wing for a second.

The Trumpet Creeper is another regular source of food supply; this with its orange red flowers, is seldom without a Humming Bird feeding in its clusters. The Scarlet Salvia is still another red flower constantly frequented by this bird, so constantly that the family cat has learned a dainty morsel can easily be picked up here.

When sitting on a vine covered porch one afternoon a Humming Bird flew against me, apparently because I was wearing a bright dress. One very early morning, before rising time for humans, I was conscious of the humming of wings and was amused to find a Humming Bird dipping from flower to flower of my red flowered comfort.

One year the resident pair came regularly to the Buckeye tree near the house (this was *Aesculus Glabra*), which was laden with its creamy blossoms, but this year it was ignored. The sweet scented Honeysuckle, which is white when fresh and full of honey, they seem to visit infrequently, and the very fragrant, waxy single Tuberose was entirely ignored this summer, though food seemed rather at a premium just then. These instances would suggest that white flowers were not noticed by these birds.

In addition to these observations in regard to colors, I found this Summer the male Humming Bird may be temperamental. Each year the Humming Birds have seemed to dwell in harmony at The Brooks, but this year the male would not allow the female to sup nectar from the Columbine in his presence, though there was plenty for both. There would be sharp notes and she would depart precipitately. At one time he was frightened away; she had the entire bed to herself. She took her fill, lighted on a twig and preened herself, had another feast of nectar, and flew away, this once, satisfied and with self-respect.

Is the Heath Hen Extinct?

By ALFRED O. GROSS

Bowdoin College, Brunswick, Maine

Is the "Last Heath Hen" alive or has the species finally become extinct? is a question being asked by all those who have followed the recent reports of the famous Martha's Vineyard bird. It is, however, a question that cannot be definitely answered. The last bird has been given the freedom to live its last days in a normal, natural environment on an island more than twenty miles in length. The interior of the island contains more than 15,000 acres of low, bushy, almost impenetrable growth of scrub oak. This ideal cover was one of the factors which enabled the Heath Hen to prolong its existence on Martha's Vineyard long after it had vanished from all other parts of its range, which extended from Maine to the Carolinas.

Each Spring, as was the custom of its ancestors, the lone bird appeared on the open fields with unfailing regularity. In the past the birds came for the courtship performances, but since there has been but one bird the booming and curious mating antics have been omitted. After the middle of June the Heath Hen retired to the scrub oaks to live a life of seclusion through the nesting and moulting season. In the fall, usually during September and October, the birds again came out to the open fields to feed and continued to appear regularly during the Winter. In the first warm days of March the booming of the courtship was heard, a performance which reached its maximum by the middle of May.

Since December 8, 1928, there has been but one bird reported, but this lone individual has come regularly each Spring and each Fall to an open field on the farm of James Green near West Tisbury. This past Autumn, for the first time, it has failed to appear. It is now nearly eight months since it was last seen, on May 9, 1931. During the past few months the state game wardens, ornithologists and scores of interested observers have searched the fields and scrub oaks in vain to get a glimpse of the last Heath

Hen. Personally, I have little hope of seeing this bird alive again, but, nevertheless, next April another well-organized search will be made for the Conservation Department of Massachusetts to locate either the living bird or its remains. On April 1, 1931, the bird was trapped and an aluminum band number 407880 was placed on the tarsus of the left leg and a copper band number A-634024 was fastened to the right leg. These bands will serve as a positive identification in the event the bird is found. If the bird is not seen by next June it will then be reasonable to infer that the Heath Hen is extinct.

The experiment on Martha's Vineyard to save the Heath Hen, which cost the State of Massachusetts many thousands of dollars, has not been in vain. This unprecedented effort to prevent a bird's extinction has given the "Last Heath Hen" a very wide publicity that has served to fire the imagination and to arouse a greater public interest in conservation. The going of the Heath Hen has awakened the sportsman to the realization of the fact that other game birds will be in danger if we continue as we have in the past. The "Last Heath Hen" is a dramatic warning against further neglect of wild life.

The Cardinal Chorus

By FRED S. LODGE

In August, 1923, the late noted author-naturalist, Dallas Lore Sharp, was on the Chautauqua program at the writer's old home town in central Illinois, and it was arranged for him to arrive a day early so that a night could be spent at my brother's cabin in the woods nearby.

In driving out to the woods in the late afternoon Sharp remarked that he hoped he would get to hear a Cardinal sing. As he was a New Englander and seldom got into the South, he had rarely heard the song. We promised he should surely see one, but it was seldom, if ever, that the song was heard in mid-August.

The cabin stands in a little clearing on a high bluff of the Sangamon River. The night was cool for August; in fact, a fire in the fireplace was most comfortable as we sat and chatted on nature, religion, politics, Democracy in Education and so forth until nearly midnight. At last we bedded down on the floor of the big screened porch with our heads near the wire so that we could look up at the stars and, as Sharp said, "be ready to be wakened by the birds." I think of Bernard Shaw's remark to Hamlin Garland after inviting him out into the country to hear the Nightingale: "The Nightingale is a very unreliable bird. One night he sings, and the

next for some unexplained reason he doesn't." Garland was there the wrong night. Not a note was heard.

August in Illinois is not a month of singing birds. None of us natives expected to hear any bird songs of consequence in the morning at this time of year. We expected to be wakened by the cawing of crows or by the squirrels dropping young acorns on the roof. Only Sharp had faith. After some further philosophizing we quieted down and the night orchestra was soon augmented by unconscious sounds from the porch.

As the first streak of dawn crept into the East, a shrill whistle rang through the clearing. Up came Sharp's head from the pillow. Another whistle answered from behind the cabin, another from across the river, and in a moment the air was filled with the song of the Cardinal from every point of the compass. Not more than ten feet from our heads grew a small Hawthorn bush some seven or eight feet high. As the dawn brightened there was a flash of flame from this bush and a male Cardinal in full splendor of plumage proceeded to pour out his soul in song; another lit beside him and another and another until not less than seven males were in full song in that one bush. Fully fifty were singing at once on that one-acre clearing.

Seldom have I seen such ecstasy in a man's face as shown in Sharp's. Not a word or a sound was uttered by anyone while the concert lasted. In ten minutes it was all over—the birds had passed on and their singing stopped as they passed probably to the important duty of finding breakfast. Only the scream of a Jay was to be heard.

Silently we filed down to the river for a swim before breakfast. The water was cold, but with chattering teeth Sharp said: "This is Lincoln's river and it is an honor and a joy to have had a dip in the stream we New Englanders venerate as his."



Photograph by Alfred M. Bailey and Fred S. Lodge

CARDINAL ON ITS NEST

While dressing, the wonder of the Cardinal chorus came under discussion. None of us had ever heard more than a half dozen Cardinals singing at once before, and those always scattered wide and only in the breeding season, never in August. It was one of Mother Nature's mysteries and we could only say it was in honor of our distinguished guest.

After the lecture that night we again returned to the cabin and slept again on the porch. We were all awake before dawn and lay whispering waiting for the Cardinals. The dawn came, the day came and not one note of Cardinal song, nothing but the Crows and a Jay. A two-mile paddle in the canoe up the river and an hour's tramp through the woods and thickets brought not one glimpse of a Cardinal feather. But they had kept faith with Sharp, had in full measure rewarded the love and admiration he had for them.

Were it not for his untimely loss, we should have had this story from his own brilliant pen, but I can only record the incident in his memory.

Filming for Birds

By F. R. DICKINSON

A few years ago, being neither very old nor yet very young, I cast about for a hobby less exhausting than tennis, less annoying than golf, less expensive than motorboating and less sedentary than bridge. Alfred M. Bailey, Director of the Chicago Academy of Science, said "Why not motion pictures of bird life?" It was a good idea. If birds nested twelve months in the year it would have been a perfect idea.

The equipment, though simple, allows some play for ingenuity. My own preference in blinds is an affair having four legs of quarter-inch (inside measurement) galvanized iron pipe, held at the top by a round plate with four holes through which the threaded ends of the pipes project, with a nut above and below each of the holes. The legs have two three and a half foot sections joined in the middle by a threaded sleeve coupling. Over it all goes a home-made tent of sateen or denim with a few tapes sewed inside to the legs. It is light and when taken apart is easily portable. For work in trees or on top of a ladder the tent cloth alone serves quite well.

My first set-up, in Charlevoix County, Michigan, was on a Cedar Waxwing's nest, nicely fitted to a small crotch in a young Hard Maple. As the bird seemed positively cordial I carefully climbed a ladder and watching her from a distance of five or six feet, thought it was going to be too easy and proceeded to hang the blind from a handy limb. And that is the end of the story. The bird winged for parts unknown, and I never again made a set-up until the subject had a full clutch of eggs and had begun to incubate.



Photograph by F. R. Dickinson

KINGBIRD FLEDGLING

The next attempt was more successful. A sudden storm twisted off a limb of an old apple tree and dumped three young Kingbirds on the ground. It destroyed their nest but not their appetites. After setting them on the edge of a hole in the hollow trunk I placed the blind about six feet away, slipped a three-inch lens on my Filmo, and found that the young birds just filled the screen. They looked surprised and dignified. Inside of ten minutes the old bird had sized up the situation, resumed her job and was ramming helpless insects down their open gullets. By switching on the double speed mechanism I got some interesting semi-slow motion footage.

The following morning my daughter located three young Redwings in a beautifully woven nest on Cat-tail stalks about four feet from the ground. The site was in the middle of a dried up marsh. As this was probably the hottest spot in Michigan and the hottest day of a hot Summer, I congratulated myself on having so bold and confiding a creature as a blackbird for a subject, and crawled into the blind prepared to finish the picture in a hurry before the film should explode. Thereupon for two hours the female Redwing sat on a nearby Cat-tail hurling at me without interruption every oath and insult contained in the avian vocabulary. As the young were partly shaded and must have been learning something new and useful, I stuck it out until in the third hour the old bird came in and performed under the eye of the camera.

Other birds, including the Chipping Sparrow, Prairie Horned Lark, Barn Swallow, House Wren, Robin and Goldfinch, filled spare hours during the rest of the season. To see how the Chippie would respond to a simple problem I put a grape leaf across her nest. She came back at once and brooded on the leaf, making no attempt to remove it. Similarly a House Wren was wholly nonplussed by a dried leaf inserted loosely in the entrance hole of the nesting box. Apparently birds accept such phenomena much as we accept financial depressions, though they continue to look cheerful and do not seem to worry.

As a rather green amateur I feel bound to offer some suggestions: A few dimes applied to farm boys and girls will produce more nests than you can cover with five cameras and will save much footwork. A camera, either still or movie, with a ground glass or other critical focus, avoids guesswork, measuring and spoiled film. Two or three different long focus lenses are a great convenience. A solidly built tripod with a universal joint under the mounting plate is a great aid to the temper. And unless you are an Oriental, able to squat comfortably on your heels, a small box, not to mention an upholstered chair, will prolong your life. Plan your picture. Photograph the location, the eggs and nest close up, the young just out (coming out, if possible), the brooding and feeding and the young ready to fly. Have the weather in mind and don't keep the old bird off too long at a time. When your film has been developed, cut it up and assemble it to tell a consecutive story.

Our Newest Great National Park

In the Oldest Mountains in North America

By ORPHEUS MOYER SCHANTZ

While the Great Smoky Mountain National Park has not yet been officially advertised, its popularity was shown during the last summer by an estimated attendance of 154,000 visitors from almost every state in the Union and from many foreign countries. The larger number of visitors were tourists seeking something new to explore; a smaller number were those interested in the scientific possibilities of this little known out-of-door biological laboratory.

Its accessibility and its nearness to the center of population of the United States—western Indiana—assure for it within a very short time as great or even greater attendance than any of the great National Parks.

While it seems almost incredible that a region of such fascinating interest and scenic beauty, in almost every way that makes for National Park qualifications, should have escaped commercial devastation for so many years, its isolation was all that saved it. However, the lack of navigable highways more than anything else explains why the incomparable Smoky Mountain range is less known to America's traveling public than are the mountains of Europe.

Without highways, the most attractive sections of the country might remain indefinitely backward and unknown. The story of how the first pioneers came into the mountains, of their gradual slipping into illiteracy because of isolation and poverty, their retention, almost unchanged for more than 200 years, of the language, customs, folk lore and ballad singing, all dating back to Elizabethan England, is one of the most fascinating stories of our country and is one that will appeal more and more to the visitor in the Smoky Mountain National Park region.

In May, 1918, the writer made his first visit to the Smokies, going from Chicago to Knoxville in a modern Pullman car; from there to Sevierville, the county seat of the great county which contains most of the higher peaks in the New Park.

From Knoxville to Sevierville the journey was made by lumber railway, then from there the next seven miles by Ford car, and the last seven by horse and buggy with the mail man. Today one may make the journey in comfort, by rail or auto or bus, over as fine highways as are found anywhere.

Spring in the Smokies is a revelation to those only familiar with Spring in the North.

Geologically, the Smokies are said to be the oldest mountains in America, if not in the world. One must accumulate a new nomenclature in

reading about the region, such as pre-Cambrian, archaic, metamorphic, etc., etc. The formation of which the Smokies are literally the "high spot" begins north of the mighty St. Lawrence in Labrador and continues southwesterly across the United States to Alabama.

The southern Appalachian system affects portions of nine states—Maryland, North and South Carolina, Virginia and West Virginia, Kentucky, Tennessee, Georgia and Alabama. In this vast area, approximately 650 miles in length, are living between 5,000,000 and 6,000,000 pure descent, English-speaking Americans, a great majority of whom are still without school facilities; consequently there is a very high percentage of illiteracy. Many of the mountain people are ignorant of trains, cities, and the many small comforts that are the common environment of even poor people outside the mountains.

To anyone who has the slightest interest in things out-of-doors, the Smokies are a constant delight, for the unexpected in plant, animal and bird life is quite liable to appear at any time and place. In 1920 I was persuaded to make my first mountain climb. At that time the ascent of any of the high peaks was a real adventure, as there were no well-defined trails. Starting out early one morning, without knowledge of the time required for the ascent, not knowing "how fur hit might be" or what food to take along, the climbing of Rocky Spur (approximately 6,000 feet altitude) was a real experience and one never to be forgotten. Strangely enough, after 13 years have elapsed, Rocky Spur remains one of the least known of the high peaks in the vicinity of Gatlinburg, largely because of the difficulty of the climb. Next Summer it is planned to make it accessible over a fine horseback trail.

The popular climb for the tourist is to the top of Leconte (6,593 feet), where there is a shelter house and where are open tops from which magnificent sunset and sunrise views may be enjoyed. One needs to revise conceptions of the size of trees in the Smokies, for almost all species grow to oversize girth and height.

A well known Chicago botanist in April, 1927, was repeatedly heard to say: "It looks like Halesia-Silver Bell, but it's too large;" or, "It looks like Hercules Club, or Dogwood, but they are too large."

Because of the extreme age of the deeply eroded valleys, there is frequently a marked difference in plant associations, each valley having its own attractions, based on soil, north or south exposure, or by reason of plant migrations that have reached one valley and possibly not its immediate neighbor valley.

Each season in the Smokies has its individual attractions. The Spring floral display is bewildering in its variety and beauty. Then all through the Summer there is a succession of flowers and wild fruits, many



Photograph by Orpheus M. Schantz

EARLY MORNING IN THE HIGH SMOKIES
(New road to the top of the divide)

of them unknown in the North, and when Autumn comes, a display of color so brilliant that one cannot adequately describe it.

No large appropriations have yet been made for the building of roads and trails through the park by the Park National Directors. The State of Tennessee, however, anticipating the need, has constructed many miles of magnificent highways into the heart of the Smokies, one of which has been cut through the primeval forest to the crest of the divide between North Carolina and Tennessee, to an altitude of 5,047 feet, where one may stand with one foot in either state and gaze north across to Leconte and south into the distant Nantahala range of North Carolina.

From this point may be followed a trail in either direction along the knife ridge crest of the state boundary line southeast six miles to Clingmans Dome (6,642 feet) and northeast to Mt. Collins (6,400 feet), with a possibility of seeing and hearing a Raven or meeting up with a black "bar." On either side only a short distance from the trail the slopes drop sharply, north into Tennessee and south into North Carolina.

Here may be seen the Carolina Junco, Winter Wren, the Great Pileated Woodpecker (Log Cock), the Yellow-breasted Chat, rare warblers, both the Kinglets and the Nuthatches.

The Smokies have an unusually varied small mammal and reptile population and a wealth of insect life, many species being connecting links between the prehistoric forms and those of today. Scientists state that the

Appalachians from Pennsylvania southward, never having been glaciated, were the sources of the rehabilitation of the northern part of the continent that had been devastated by the Labrador and other ice sheets. On top of the Smokies the vegetation is akin to that of the Far North, while at their feet it is almost sub-tropical. Accompanying this marvelous natural primeval mountain and forest panorama are the quaint and fascinating people who have, because of their isolation, remained at a stationary development, which will rapidly disappear as the Park brings its thousands of visitors.

Naturally, one would think that the streams in the Smokies would be part of the Atlantic coast drainage system, as it is only 250 miles to the Carolina coast.

The drainage from both sides of the Smokies through the many creeks and larger streams, finally through the Tennessee River reach the Ohio River at Paducah, Kentucky, so that actually the Smoky Mountains have a close association to the Ohio River basin. The name of the mountains, while indicating that it came from a smoky condition prevalent through most of the Summer, is in that sense a misnomer, as the haze is entirely atmospheric. In the Smokies the haze is white, while in the sister Blue Ridge Mountains the haze is bluish.

Not elsewhere in the United States is there a region of more varied and compelling interest than the New Great Smoky Mountain National Park, which, when completed, will contain more than 450,000 acres, making it one of the largest parks in area. Aside from its unique attractions, it has the additional distinction of being the first large National Park to be established east of the Mississippi River.

The writer in October made his twenty-first visit to the Smokies. The region is so vast that a lifetime would not exhaust the possibilities for new discoveries and thrills.

A member of the staff of the Chicago Academy of Sciences, Edwin Komarek, in March and April, 1931, conducted a survey of the small animal and reptile life of the Leconte Mountain region in the Smokies, and during the Spring, Summer and Autumn Dr. Herman S. Pepoon, author of the *Flora of the Chicago Region*, made a list of the plants of the same area, enumerating almost 1,500 in five months.

For the seeker for biological lore, for the tourist whose object is a new place to motor, for those interested in early pioneer history, the Smokies have a strong appeal. The days are warm, but because of the elevation the nights are always cool. The intervening country between Chicago and the new park is all attractive, the railway trip is delightful, and by motor one can go all the way over fine, well-marked and well-graded highways. See the wonders of your own country before going abroad.



BENJAMIN GAULT AND THE LATE ROBERT RIDGEWAY AT OLNEY

Ben Gault Bird Sanctuary in Glen Ellyn

Members of the Illinois Audubon Society will be pleased to know that a bird sanctuary and wild flower preserve has been named for one of our directors. The Glen Ellyn park board has recently purchased a tract of land in the town, approximately 100 feet in frontage, running from Main Street to Forest Avenue. The park board has decided to call the sanctuary the Ben Gault Bird Sanctuary in honor of Mr. Gault, who has taken such an interest in this project, and who is an international authority on bird life. It is planned to surround the property on all sides with a high animal-proof wire fence, and perhaps later erect an observation tower within where the birds may be watched and studied without frightening them. Native trees and wild flowers will be added from time to time to make the sanctuary a natural and hospitable place for migratory, as well as nesting birds.

It is planned to have the area enlarged considerably, and at present work is being done on the "rockery," which will add to its attractiveness. A smaller "rockery" is also contemplated; mossy boulders will be distributed along the brook at irregular intervals, and native wild flowers, shrubs and trees will be planted, with the view of making the sanctuary as attractive as possible.

Conservation

By HENRY B. WARD

One of the fundamental dangers in the conservation program today is due to failure of many good men to think out the problems that arise. After all, natural resources are to be utilized for the benefit of the race. We cannot keep untouched every beautiful spot in our country. Mines must be dug, roads built, quarries opened, forests cut down, swamps drained, and all of these as well as other activities be continued if the nation is to prosper. But it is equally true that such an argument does not justify the destruction of all that is beautiful. The rule of reason must apply and it demands thought and vision to apply the rule.

Recently magazines, newspapers, and even the air have been filled with comments on hunting wild birds, especially the migratory water fowl. Individual shooters, duck clubs, and even state conservation officers—all of them ardent sportsmen—proclaim that the birds are as plentiful as ever and restrictions are uncalled for. Arrayed on the other side one finds a battalion carrying the banner of "No Shooting" and supported by some big guns with plenty of ammunition. Really two questions are involved; first, general policy and second, present practices. How shall we decide the two questions?

As a general policy the conservationist seeks the proper utilization of all natural resources; and as far as birds are concerned, I confess I admire and adopt Jack Miner's position. No one on this continent has given as much time, thought, work, and money from very modest resources, to the preservation of our birds as Jack Miner has devoted unselfishly to the migratory water fowl. But he says frankly that he believes in reasonable shooting and so do I, for it is the great adventure of youth.

Now as to this year: All the really careful studies agree in reporting a greatly diminished waterfowl population in many areas. Other reports are based upon occasional local observations, or on more serious limitations of the observer. The restrictions were necessary for 1931 and may be for 1932 also. The decision must be based on scientific study in the field. Mere opinions must be rejected without hesitation, whatever our prejudices. Let us keep our balance despite the violence of the attacks of extremists and prove that the safe and sane Americans are in the majority.

Taking Inventory

A Resumé of Conditions by the President of the Society, C. W. G. Eifrig

Looking over the past year in its bearing on the conservation of wild life, the outlook is still discouraging and worse. The wild ducks in the North and Northwest had another bad season owing to disastrous drought, the third consecutive one. This is what game commissioners Etter of Saskatchewan, Lawton and Leffler of Alberta, where the bulk of North American ducks must be bred, and Mr. Jack Miner of Ontario told the International Association of Game Commissioners assembled at Toronto. They gave "descriptions of the terrors of heat, dust, no water and no food on the vast breeding grounds of the north central prairie region. Mr. Etter declared a loss of 90 per cent of the young ducks hatched in 1930, and Mr. Leffler declared that since 1928 the whole visible supply of ducks had decreased by 50 per cent. Later on it was officially reported from Canada that the losses in young ducks in the Spring hatch of 1931 was 99 per cent!"

At the same time the army of seven million hunters has not materially decreased according to the number of hunting licenses "sold." This promiscuous selling of such killing licenses by every petty city or village official, even by sundry store-keepers, to anyone who pays the \$1.00 is a nuisance that would not be tolerated in any other civilized country. Such licenses should be looked upon as marks of distinction, to be given only to reputable, well-known citizens of integrity and above 21 years of age. Look what is allowed to parade in Illinois with the ownership of a hunting license!

The situation with respect to the ducks became so threatening that President Hoover felt called upon to issue a proclamation reducing the hunting season.

But for all that, double orgies of killing were held again in our own State of Illinois. It seems as though civic iniquity among politicians and officials were holding a carnival. Owing to an oversight of several sets of officials, who are paid handsomely to guard the state against such oversights, the law protecting Pheasants and other gallinaceous birds during most of the year, and the killing of hen Pheasants at all times was allowed to lapse in September. As though it had been broadcast by someone, an army of game-hogs,—let us not call them sportsmen, or even hunters—went out and shot any and all of these unfortunate birds they could. I was informed that certain of these game butchers brought in dozens of hen Pheasants. Naturally, Quail, Grey Partridge, and Prairie Chickens fared just as badly, although the last named will soon be as rare

in Illinois as the Heath Hen in Martha's Vineyard—if nothing decisive is done soon.

Nor is this all. When the Illinois Conservation officials were approached as to their willingness to cooperate with President Hoover's proclamation they refused. We in Illinois have double or treble reason to bow our head in shame!

When driving through the state in the vicinity of Peoria the writer has been handed handbills inviting him to certain *private* duck shooting grounds, where upon the payment of \$10.00 per day he could shoot ducks over live decoys and in baited waters to his heart's content! Should not the good citizenship of Illinois rise up in indignation against such conditions! Is there anything left under the sun that is not basely commercialized?

Before me lies a copy of "The Plain Truth About Game Conservation," published by that old war-horse of conservation, William T. Hornaday. Subjoined is a clipping from it about conditions in our state.

ILLINOIS.—The following new information is from Aldo Leopold's excellent and instructive new book, "Game Survey of the North Central States":

"The most radical recent change in waterfowl shooting practices is the growth of artificial baiting. On the other hand it has also made possible the systematic commercialized killing of great numbers of ducks on absolutely dry cornfields, miles from water.

"The baiting capital of America is Beardstown, Illinois. In the bottoms above and below Beardstown, clubs and commercial shooting grounds in 1928 were putting out as high as 7,000 bushels of corn per season on a 20-acre tract. The rates per acre ran up to 430 bushels per season. One baited dry-land commercial shooting preserve killed 4,000 ducks in 60 days on 40 acres, or 100 ducks per acre per year. Its kill of 4,000 ducks is 266 limits shot by possibly 100 licenses contributing perhaps \$200 to restore game.

"Commercial preserves and toll farms on the Illinois place six or even 10 guns over each 'pen' of the live decoys. It is frequently compulsory to shoot only at flocks small enough to be 'cleaned up.' One objection to dry bait grounds is that the flocks which come in are too large to be 'cleaned.' Pot-shooting on the water or ground is prevalent on commercial preserves and toll farms, and unfortunately even in some clubs."

In an article entitled "The Stench on the Illinois River," in *Outdoor Life* magazine, Gillham thus describes the effects of the Illinois commercial club system on the unfortunate wildfowl using the Mississippi Valley route:

"The duck that starts his migration via the Illinois River routes does

not stand a 'Chinaman's chance' of getting rest or food unless he puts in at one of the big duck clubs. He is hungry and weary, and welcomes a place among others of his kind. As soon as he and a thousand others have had their wild fears removed, they are ready for their baptism of fire. This is usually executed by driving the birds from their baited pens some morning before they have finished feeding, the decoys, of course, remaining behind. The wild birds fly to the river and alight there for a time.

"Back at the pens the gunners take their places and await the return of the unsuspecting ducks. Small bunches start almost immediately to return to the feed pens. They are neatly executed as they arrive. When the hunters have killed all that they desire, the remainder of the returning ducks are not bothered. This system of driving them out at feeding time and picking off the small bunches as they return is practiced to prevent 'burning out,' as it is termed, the main bulk of the ducks. Were the whole of the birds shot at, they would probably leave, but in the manner described they hang around until practically all of them have been killed."

Now what about such awful conditions? Should we give up the fight in disgust and despair? No, indeed! "There can be no discharge in war!" (Hornaday). The greater the stupidity and remissness of duty (if not worse) of our politicians and public officials the more determined and relentless and skillful must become our opposition, our fight. Let us give such unfaithful servants to the best interests of the state to understand that at the very least, there is the ballot that can be used for a reckoning. And then there is also impeachment. If they do their worst, we must do our best!

As for constructive work we can do no better than adopt and carry out Hornaday's recommendations, which include:

1. "The salvage of the Mourning Dove from the frying pan.
2. The salvage of the Wild Turkey from total extinction.
3. Efforts to save the last remnants of the Trumpeter Swan, Whooping Crane, White Pelican, and California Condor.
4. Two years' extension of the one-month open season on water-fowl.
5. The saving of the Bald Eagle in the United States,—by a wise bill!
6. Joining in the stoppage of baiting game to kill it.
7. Joining in the stoppage of all use of live decoys.
8. Working for the stoppage of the sale of game in the air.
9. Joining the campaign for a tax of ten cents a box on cartridges for better warden service in law enforcement."



THE COMMON TERN
Photograph by Alfred M. Bailey and W. I. Lyon

Island Bird Life

By W. I. LYON

Picture in your mind the birds that nested on the islands of Lake Michigan and Green Bay about one hundred years ago and you will have a bird lover's paradise; then think of the change civilization has brought to the birds. Out of fifty-three islands in the Green Bay district today, only ten have colonies of any size and ten others have a small population.

Hat and Sisters Islands are the first real colonies in Green Bay, with 200 to 500 nests of Herring Gulls, and just south of Death's Door in Lake Michigan you will find Gravel and Spider Islands with more Herring Gulls, and a dozen nests of the Big Blue Herons, the latter being found in the trees of the larger of the Spiders. Hog Island is located just east of Washington Island and farther north are the Gull Islands with a wonderful colony of Caspian Terns on Gravelly Island. The southeast point has a space not over half an acre in extent that is all gravel, and as far back as we can find any bird records, the Caspian Terns have held that spot against all invaders. The island contains about five acres and the Herring Gulls control all not held by the terns. There are usually a few Red-breasted Mergansers nesting under the wild currant and nettles which cover the higher portion, and also a few Red-winged Blackbirds and Song Sparrows, but these young birds must have a very small chance to mature as the Herring Gulls will eat them if there is the slightest chance. Whenever a young Caspian strays across "no man's land," he is immediately killed and eaten, and, in fact, many young gulls are treated in the same way by their own kin. As we approached this island, the Herring Gulls met us with cries of protest; then, as we came close, there was a louder, harsher cry of "back of the hill, back of the hill" from the Caspians, and they never ceased to shriek and charge at us as long as we were about. They dive head foremost, and as one is about to dodge, they shoot up over his head and out of reach, but they make the charge so in earnest that one is never quite sure of safety. The gulls become more quiet after a while, but never the Caspians, and as long as invaders are on their territory, they will keep up their attack.

Big Gull Island is only half a mile away and is well covered with good sized trees; there are usually about fifty nests along the shores. Little Gull, a short distance away, has a low rocky point to the east with a small space covered with bushes which is always a favorite nesting place for a couple hundred gulls, while nearly all the wooded islands have a few nests of Great Blue Herons.

From Door Peninsula we retrace our steps and go around Green Bay, and follow along the west shore until we near the town of Escanaba, where we find Misery Bay, with Sand and Small Islands. These are favorite nesting places for many sea birds, a small colony of Caspians, a few Herring Gulls and several hundred nests of Common Terns being found on the open parts while an occasional Black Duck and Red-breasted Merganser nests under the bushes. Mr. Ford found a nest of the latter this past season containing seventeen eggs.

Snake and Round Islands in the northern part of Green Bay contain a fair number of gull nests, while in the very north end of Lake Michigan is Naubinway Island with a very interesting colony of Common Terns, containing two hundred or more nests. This island is rough, with rocks, but has a good growth of small willows. Green Island on the north side of the Straits of Mackinaw has another good colony of Common Terns.

Now we have to cross the Straits of Mackinaw and travel down the east side of Lake Michigan, and find a way to get out to the Beaver Island group. Finally,—we arrive in a wonderful natural harbor in Beaver Island at St. James. Quite a ways out to the southwest lies Gull Island, and it is well named as there are many nests along the shore. There we were surprised to find them nesting back in an open space in the center of the island; the young gulls run about, hiding under the bushes until they are able to fly away to the northeast. We found a hundred or more nests of gulls on Wire Island, while just south of Wire, on a long low bar, with a local name of Snake Island, we found one hundred or more nests of Common Terns. Then, to the east, were Hat and Shoe Islands. On Shoe, in moderately low water, one will find another large colony of Caspians, and right in their midst were twenty-five or more nests of Common Terns. The Caspian Terns have nested in the same place for as far back as records can be found, although the birds have to move in case of high water, in which case they nest on the south point of Hat Island, a half mile away. Sometimes, both places are occupied. Hat Island always has one hundred or more gull nests, and a fair colony of Great Blue Herons. The Herring Gull is the only species of gull we have found nesting in Lake Michigan.

The sea birds have had to abandon the large islands of the lake, which have been inhabited by man, for dogs and cats soon make conditions impossible for them. There should be some move to save the few islands for the birds, before it is too late! There are a number of small shoals which are unfit for human habitations, and these should be acquired and set aside as reservations.

The American Woodcock

By E. R. FORD

The Woodcock arrives early in the Spring, between March 15 and 20, and repairs at once to its breeding haunts in the brushy woodland borders of streams, runs and swampy areas; borings and characteristic "chalkings" soon mark the locality. The bird is of nocturnal habit and does not flush readily. It rests upon the ground, its pattern and color making it inconspicuous amid the forest litter and, usually, one is made aware of its presence by a whistling sound caused by the rapid movement of its wings as it seems to hurl itself into the air. A short, low flight and it settles again into concealment. At dusk the male calls from the ground, a nasal "peent" something like that of the Nighthawk. This is repeated several times, the length of the notes and the intervals being about equal. One listens expectant in the chill of the deepening shadows and the rising mist. A lone star appears. Frogs pipe bodingly. Suddenly the faint form of the bird is seen against the sky-line. He rises and circles with a shrill, continuous sound of wings until, reaching at the same time, it would seem, the climax of his ecstasy and the zenith of his flight he pitches to earth to the accompaniment of a "clear, twittering whistle." He alights near the spot from whence he arose where, also, not far away the female sits. Soon again the bleating note recurs and the frenzied flight is repeated. The performance seen in clear light is thus recorded: "Between six and half past eight on a dull, muggy morning in April I watched a Woodcock's evolutions. He flew with extreme rapidity from one end of the cover to the other, a distance of more than 300 feet, his course describing an oval. Most of the time he kept an altitude of about 200 feet. The winnowing of the air which results in the whistling sound seemed to be made by the lower part of the wing as the bird's body, sharply tilted, was thrown side-wise in the direction of its flight."—Stoddard.

The site chosen for the nest is among the dry leaves "at the base of a clump of sprouts," "beside a wild gooseberry bush," "beside a fallen branch," "at the base of a sapling," or "between a fragment of a dead branch and a fallen grapevine." The position of the nest thus usually insures against the mischance of being trod upon by men or cattle. Oaks, Willows, Prickly Ash, Hazel and Elderberry form favorite coverts for the brooding Woodcock.

The eggs, numbering four, color clear buff to light brown, spotted and blotched with shades of rufous, are laid in April. From 25 nesting records, March 31 is the earliest date for the laying of the first egg, and May 1 the latest. The average date for full sets as obtained from these records is April 16. Usually the female does not cover the eggs until the

set is complete. Nests containing one, two or three eggs sometimes lie bare to the eye of the searcher but are as inconspicuous among the leaves as the parent when she broods them. Motionless then, as in a photograph of her very self, her whole being supremely centered upon the task of keeping still, she desperately holds her place, her purpose weakening only when some overt act of the observer threatens destruction. "The bird was urged to leave the nest by touching her, first with a long weed stalk, stroking gently, then with fingers beneath her sides. Upon this she hopped exactly ten inches from the nest and voided excrement; then erecting her tail and displaying it fan-wise she walked slowly away, assuming a crouching position and drooping her wings but making no sound."—Ford.

The young are hatched in 20 or 21 days (in one instance 19 days—Richardson). They leave the nest at once but for several days are constantly brooded and will be found with the parent within a few yards of the spot where they were hatched. The female, flushed suddenly from the new-born chicks, scatters them topsy-turvy in the leaves. Ruled by the instinct that motion betrays, they remain in awkward and difficult poses, relaxing and trying to glide away only when touched.



Photograph by Alfred M. Bailey and F. R. Dickinson

THE WOODCOCK ON ITS NEST

Birds of the year are found with the parents until full grown. In June the families become scattered but until the last of October, Woodcock can be flushed from the coverts where they have bred. Near Chicago, Woodcock may be found year after year in the same breeding areas. Often these become restricted. Trees are cut down, streets laid and dwellings built. "Next year" we say, "will see the last of them." But, somehow, always, a pair or two persists. In favored parts of the Dunes we believe their generations are secure for years to come.

A Visit to Selbourne

By C. W. G. EIFRIG

What nature lover or naturalist, be he professional or amateur, on reading Gilbert White's "Natural History of Selbourne," could suppress the wish rising in him that he might be permitted at some time in his life to visit this delectable place? When, therefore, the writer during the past Summer visited England, he made sure to include Selbourne in his itinerary. Accordingly, after he had looked over Winchester and its ancient cathedral, containing among many others the grave of Izaak Walton, he made his way to Alton, and thence by bus to Selbourne, since it is not on any railway. It was June 11th.

When entering the towns and villages of England, it seems to one from this side of the Atlantic, where things are all rather new, as though time had suddenly been turned back several centuries. So it is in Selbourne. There is the ancient Norman church of which White was rector; before the church stands the gigantic Yew, probably the largest in the world, with a circumference of twenty-seven feet, nine inches. Beside and behind is the cemetery with White's grave, marked only by two small stones at the head and foot. Next to the graveyard is the pasture, then the wooded ravine, and hill, as in White's time. On the other side are the few streets of the village, lined by houses in and out of which the good rector White passed. And beyond that, is Selbourne's chief glory, the Hanger, also as it was at his time. Around the houses and in the gardens are a profusion of flowers, many of gigantic, luxuriant growth, flowering shrubs of many kinds, evergreens and other trees in great abundance.

No wonder this is a paradise for birds. Nowhere else, North or South, East or West, have I ever heard such a chorus of bird songs. The number and variety of songs and whistles and call-notes was bewildering.

The Hanger, consisting of tall old Beeches on the hillside, reverberated like a cathedral with this medley of songs as I went up late in the afternoon, and again early the next morning. The Blackbird, a thrush in this case, could be heard on all sides. This was punctuated by the cooing of the Wood Pigeon and the Cuckoos; there was also the tattoo of a woodpecker and the derisive laughter of a jay. Songs of exquisite sweetness and tenderness were heard, one probably that of the Nightingale found here among the profusion of flowering shrubs. Others reminded one of the song of the Brown Thrasher, of the Cardinal, another, of the Maryland Yellowthroat, still another, of the Grasshopper Sparrow, and one, of the Flicker. The Chaffinch, the Robin, the Redstart, the Wren,—all were in full song. The notes, “wheat-ear, wheat-ear,” clearly floated over to me; I wondered whether it might not have been the Wheat-ear.

Coming down from the Hanger into the pastures and back gardens, dozens of swallows were seen darting overhead, the House Martin, the Bank Swallow, the smaller (*Hirundo rustica*), much like our Barn Swallow; these flew lower down, the swifts, high up in the air, all of them chattering, screeching, or twittering at the top of their voices. Suddenly a Robin got up on a telephone post before me, and sang. A Pied Wagtail showed its attractive pattern on the road. A little farther along a Chaffinch posed on a fence post for me; they were notably numerous.

Going to the other end of the village, where the Wey rises, we were treated to a view of several water birds, such as the Land Rail, the Coot, and the Moor-hen.

In conclusion, let me quote from the Introduction to an edition of White, gotten out by the well-known British ornithologist and bird photographer, Richard Keaston.

“In order to catch the glow of the spirit of Gilbert White, it is necessary to visit his beloved country. Who that has sat alone by night in early May at the top of the Hanger, listening to the sweet song of the Nightingale and the soft *crick-crick* of the Beech trees bursting their leaf sheaths, or seen the sun rise in golden splendor upon their full wealth of foliage in June, could escape the witchery of the place or wonder that our author’s heart abided with it to the end.”

And from “Twenty Years After,” by the same author: “To every reader who loves the memory of Gilbert White, or whose nerves require a complete rest, I would say, ‘Come and indulge your soul in the peace and rest of this little Hampshire village. The voices of the Blackcap Warbler and the Wood Wren by day and those of the Nightingale and the Fern Owl by night will conjure up for you the spirit of the old naturalist who wrote the most widely known book on the joys of outdoor life in the English language.’”

A Rare Visitor in Evanston

By BERTHA PATTEE

To have a Carolina Wren singing in one's own yard at Christmas time, and coming to the window feeding shelf to claim his share with the other winter birds is to mark a most unusual event in a bird-lover's records.

It was about the middle of September that the song of the Wren was heard for the first time. It was mistaken for that of the Tufted Titmouse since the bird was whistling only the "peto" notes which so closely resemble those of the latter bird.

Two weeks later, on the 28th to be exact, the same song was heard again, but this time the bird was giving short samples of other things he could sing as well. My curiosity was aroused and a brief search discovered the singer in the wild tangle near the house, sitting on a grapevine swing, arranging his feathers after a dip in the pool. His bright, brown back, broad creamy line over the eye, and buffy breast soon revealed the fact that he was no Titmouse. In a moment his scolding Wren-like notes proclaimed his family, and I realized to my astonishment he must be a Carolina Wren. Never before had I seen or heard one, but excited reference to Chapman soon confirmed the identification. It gave us a distinct thrill to have such a rare visitor and we were even more surprised to have him linger about from day to day and week to week giving frequent variations of his loud clear song. Indeed he is much more often heard than seen.

On Tuesday, the 6th of October, I first saw him eating suet on the tree near the food shelf; on the 12th he was discovered on the suet stick attached to the shelf and I had my first "close up" of him, his slender slightly curved bill being very plain in spite of his quick motions.

On the 2nd of November a neighbor four blocks away reported that the Wren had been over to sample her suet and give her a song. Since then he has been heard and seen in the neighborhood by a number of others who know birds well. In fact people who do not know birds well have also been conscious of this unusual song and have been curious to know what bird could be singing so beautifully this time of year.

His song is of course his most distinctive feature. He sings for short intervals nearly every day, usually early in the morning, but he is very erratic, as he gave his loud "wa chee co" call one rainy afternoon in December just before dark. The song is remarkable for its ringing clearness and its variety of repeated notes, which often resemble those of other birds, notably the Cardinal and the Titmouse. In early January the Wren was still with us.

In searching for data on the Carolina Wren in this locality I turned to "Bird Observations Near Chicago," by Ellen Drummond Farwell of Lake Forest, which was published privately after her death.

To my delight I found that she devoted several pages to notes on the Carolina Wren. She first saw him in Elmhurst in 1894. In August, 1900, comes the first record at Ardleigh, her home in Lake Forest. She then saw him at intervals up to Oct. 13.

In August, 1901, she writes, "has been here at intervals since June 27th" and December 17 of that year is her latest record of his appearance at any time. Her entry for May 19, 1902, says, "The Wren has been here for weeks, and is undoubtedly nesting here." She saw him occasionally until October 30. After an interval of 4 years in which she had not seen or heard one she heard the Carolina Wren again near and singing loudly.

Her last record, July, 1909, says, "The Carolina Wren has been here all spring and has sung constantly." She adds, "He must have nested nearby."

Mr. Edwin R. Ford of the Chicago Academy of Sciences was kind enough to send me what few published references they possessed at the Academy. They include a number of casual records of this species having been seen in Wilmette, March 21, 1926, Lincoln Park, September 5, 1926, and Glencoe, Spring 1929, and Mr. Ford's own record of having found the Carolina Wren nesting in Palos Park in April, 1909. "The nest was in a crevice formed by a spreading of the main stem of a large elm tree and was very close to the ground."

This seems especially interesting in view of the fact that Mrs. Farwell thinks they nested on the north shore in Lake Forest the same Spring, 1909!

Nature Study at the Owasippi Scout Camps

By GORDON S. PEARSALL

Very few people in Chicago beside scout leaders and parents of scouts know much about the Chicago Council Boy Scout Camps which are located near Whitehall, Michigan. But people who have visited them are loud in their praise of these camps which offer such wonderful opportunities for several hundred boys to learn nature study, to say nothing of all the essentials of woodcraft and outdoor life that go to make up a good woodsman and camper. Here the boys may spend two weeks or more each Summer and have a chance to get back to nature and see her as it is im-

possible to see her in our own region. One of the best things about it, in my estimation, is the fact that this opportunity is offered to poor boys who would otherwise probably never have a chance to get into the woods, for deserving boys who could not afford to go have part or, sometimes, all of their expenses paid. These camps are under the direction of trained leaders and experts who supervise the camps and stand ready to give the boys trained leadership whenever they wish it.

The camps are located on two fine lakes, Big Blue and Crystal Lakes. Two camps are located on Big Blue and four camps on Crystal. About these lakes, the Scouts own twelve hundred acres of virgin timber. The variety of wild life in the fields, dunes, and woods offers an exceptionally fine opportunity for study and observation. Near Big Blue Lake is a tamarack swamp where Pitcher Plants grow in great profusion in the Sphagnum Moss. Here also are found several rare Orchids such as Yellow Fringed Orchids, Purple Fringed Orchids, many Pink Lady-Slippers and a few Showy Lady-Slippers. In one clump we counted seventy-two Pink Lady-Slipper plants in an area about three feet square. In the woods bloom Trilliums, Wintergreen, Partridge Berry, Trailing Arbutus, Bird's Foot Violet, Lupine, and many other rare and common flowers. One youngster has collected over one hundred and three different species of flowers near the camps. Wild animals are also abundant. Saucy Red Squirrels and Gray and Fox Squirrels are everywhere. Chipmunks and Red Squirrels play tag over the tent tops in the early morning or watch the boys from safe places of concealment. Raccoons are quite common; their tracks in the mud show where they fished for crayfish and washed their food. The caretaker, Mr. Miller, has several as pets. Muskrats are common in the small lakes. At night, foxes occasionally come into the camps to look for food and leave their unmistakable odor behind them. Skunks also occasionally wander into the camps and Woodchucks make their burrows unmolested in the woods. Cottontails are everywhere. Meadow Mice and Pine Mice eat things in the tents, not put away, and occasionally a mole is caught by one of the boys and brought back to camp. One boy brought me a Star-nosed Mole that had been caught in a path. Once in a while a boy brings back a story of seeing a deer. On three different occasions I have seen deer; tracks of Otter are sometimes seen in the mud along the banks of streams and inlets and Mink are common.

I think there is a greater profusion of bird life about these camps and near them than can be found in most regions about Chicago. Most of our common birds are found there, as well as many not found about Chicago. A lone Bald Eagle has his aerie on Big Blue. Many a scout has pulled his blankets over his head, when he heard the weird, spooky calls from the woods and answers from the lake, before he found out that they were made by Great Horned Owls and the Loons. Even spookier is the

screaming call of the Barred Owl, which is also common. Along the White River are found many species of birds nesting which are rare in our region. There we found four pairs of Hooded Mergansers nesting. Wood Ducks also nest there. A colony of Great Blue Herons, Mallards, Teal, Scaup Ducks and Pintail also nest in the siscos and backwaters. One morning on a canoe trip I saw my first Pileated Woodpecker. On this particular trip, one hundred miles downstream to White Lake, one hundred and three species of birds were identified. That first night, as we sat about our campfire on a high bluff overlooking the river, the Great Horned Owls and Barred Owls came close to our camp to see what sort of animals were disturbing the peace of their haunts. Within a few feet of our beds, Whip-poorwills were calling from the woods. Along the White River we found Prothonotary Warblers nesting, the first record from that part of Michigan. Water-thrushes, Black and White, Myrtle and other warblers nest there. About the camps Phoebe, Pewees, Least and Crested Flycatchers, Yellow-throated, Warbling and Red-eyed Vireos, Scarlet Tanagers, Baltimore Orioles, Ovenbirds, Field, Chipping and Song Sparrows, Towhees, Tree and Bank Swallows, Wood Thrushes, Catbirds, Brown Thrashers, Robins, Bluebirds, Nuthatches, Woodpeckers, Doves, Goldfinches, Waxwings, Cardinals, Cuckoos and many others are found nesting. One bird that was common and particularly interesting to me was the Ruffed Grouse. One morning while sitting on a stump in the heavy brush on the edge of a creek, watching a doe and her little spotted fawn drinking, I heard a clucking sound and turning my head slightly, saw an old grouse and nine partly grown young eating blueberries.

Snakes, turtles and other reptiles are also found in abundance, as are insects. These are just a few of nature's woodfolks that the boys have a chance to know and get acquainted with. And do they do it? They certainly do. Each camp has a naturalist who is well versed in natural history and his duty is to run a scheduled nature study course with a program of classes every day so the boys can learn their requirements or work on their merit badges. It is my belief that when a boy has a chance to study wild life in its natural haunts, at his leisure, he really becomes interested in wild life and its conservation. This is not advertisement for Owasippi. The camp does not need it. This is simply to give you some idea of the opportunity given the Boy Scouts if they really want the training and knowledge. Who knows but that one of these boys may be a future Ridgeway or Seton or Audubon?

Gathering Field Notes for Bird Paintings

By WALTER A. WEBER

Of the various phases of ornithology, none is more fascinating than the study of living birds in the field. Intimate contact with any of the wild creatures accelerates the pulse of the nature-lover, but to the bird-minded person, seeing birds close at hand, whether they are performing some elaborate courtship display or quietly carrying on the ordinary activities of their lives, evokes a thrill of delight comparable to nothing else in the world. The fact that birds are much like people in that they exhibit characteristics of individuality in practically everything they do, adds zest to observation of their various performances.

There is practically no day in the year that does not see numbers of enthusiastic bird-lovers, armed with field glasses of one sort or another, tramping through our woods and fields or wading through marshes bent on renewing old acquaintances, but ever on the lookout for species not seen before and, more particularly, for any new thing which they can learn about some of the more common forms. The average bird-student is happy if he can simply watch birds, see them in their various attitudes, marvel at their gorgeous colors or intricate markings, discover how each one has learned to meet its problems of life. But there are many who are not satisfied with this, who are so afflicted with "*morbus aves studendi*," that they are obsessed with the desire to recreate, when at home, images of what they have seen in the field. Some of the more fortunate individuals, facile of pen, are able to weave their experiences and observations into the delicate fabric of poetry or prose, the charm and magic of their verse evolving feathered forms of grace and beauty in the rays of the reading lamp. Others, with indefatigable patience, endure exposure to wind and sun, rain and the scourge of insect stings to capture on photographic film pictorial images that can be viewed later by thousands from comfortable theatre seats. Then there is the artist, intrigued by form and color, pattern and line, who finds in the bird world an unbelievable wealth of these things exceeded perhaps, in land life, only by the insects.

Undoubtedly by this time it is evident that the present writer is not gifted with the pen and the intricacies of exposure, time and stop of camera manipulation have never become clear to him, but he has been dominated ever since he could hold a pencil by the unquenchable desire to capture on paper the exquisite beauty of the live bird. With the aim of ultimately being able to make paintings that will depict faithfully the attitude, contour, markings and color of birds as he sees them in nature, the writer has applied himself to the study of birds in the field as intensively as time and the exigencies of the modern world will permit. He has scratched

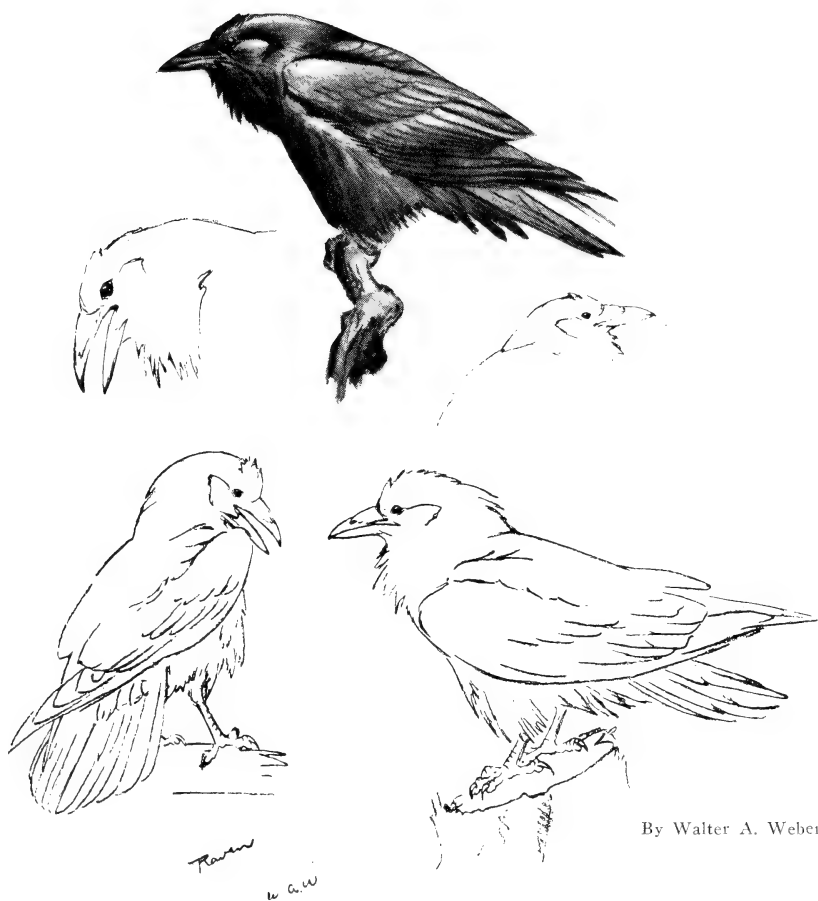
the surface of his subject; perhaps he is beginning to learn the method—the proper procedure.

No artist, however clever, can sit in his studio and make paintings unless he has his subject before him. The bird-artist would find it very difficult to bring alive into his studio all the various subjects he might wish to paint, and if he could, most of them would not act natural. Studies from captive or tame birds or even wounded specimens are not to be ignored, but to make pictures of birds as they appear in nature in normal and characteristic attitudes necessitates close study in the field.

Securing close studies of birds in the field is not always without difficulty, however. Many birds are easily approached and show little concern at the proximity of a human being. Often one is able to follow a bird around at close range and jot down several outline drawings of the same individual. Again, he may make use of the "squeak" or imitations of various owl calls to entice certain species up within a few feet of his hiding place and succeed in holding them there long enough to make sketches. On the other hand, there are many birds which are too shy to approach and which will not respond to any call. These must be studied with field glasses, careful study through the glasses being alternated with quick memory sketches on a pad to get the correct position, outline and proportions of the subject.

The greatest convenience to bird-artist, however, is the blind used so often by the bird photographer. Almost any of the water-fowl and waders so difficult of approach by boat or afoot, may be comfortably viewed from a blind concealed in the reeds at the edge of a lake or on a mud-flat. The great advantage of the blind lies in the fact that the birds are entirely oblivious of human presence and will come within a few feet of the observer, their actions unrestrained and normal; furthermore, the artist may be fairly comfortable while he sketches, inasmuch as he can move freely without fear of frightening the birds. Last spring, Mr. Frank Schmidt of the Wisconsin Conservation Commission invited me to use the blind he had erected on the courting grounds of Pinnated and Sharptail Grouse. Seated comfortably with my watercolor box at my side, I was able to make not only pencil sketches but color notes of these magnificent birds as they displayed before me. Some of the birds came within four feet of the window of the blind and on several occasions even alighted on the roof. When the Grouse were not present, other opportunities presented themselves—Horned Larks, Savannah and Vesper Sparrows, Flickers, Robins and Blackbirds were frequent visitors to the vicinity of the blind.

Supplementary to the sketches made of living birds are various studies of the fresh specimens made as soon after death as possible. Of chief importance here are color records of the eyes, lid, bill, feet, nuchal pouches



By Walter A. Weber

FIELD SKETCHES OF A RAVEN

or any exposed fleshy parts, as these are sure to fade soon after death. Notes of this sort must be checked at every opportunity from living birds, since in many instances the colors change immediately at death. Outlines or colored drawings of the whole birds are extremely helpful in studying the relations of the various feather tracts to one another and patterns formed by the markings of the feathers. A scientific study skin, however carefully prepared, often loses so much of this that it is impossible to reproduce the markings of the bird in correct relation without previous studies. In conjunction with this, sketches of the underside of the wings are necessary for paintings of birds in flight. This is especially true in the case of hawks, with their striking patterns of spots and bars on the under surface of their wings, so characteristic in many cases that the species can be identified by them from afar.

For the ultimate production of a painting of a bird in its natural surroundings, a suitable background is required. This is perhaps the most difficult problem to a bird-artist. Where the subject of a picture is treated naturalistically, the setting of the picture should be treated so. The background should faithfully reproduce the natural habitat of the bird; it should carry the depth and atmosphere of nature, but it must be subordinate to the bird. Thus constant observation of nature in her various moods of sky and water, trees and rocks, sunlight and shadow supplemented by landscape sketches, studies of interesting twigs, weeds, lichens, leaves, flowers—all this is the field work of the bird-artist.

Whistling Swans at Waukegan

There is a small pond back of the public service plant north of Waukegan which is a favorite resort for wintering wild fowl. Very few ducks have appeared this season, doubtlessly due to warm weather, but two Whistling Swans have found conditions to their liking and they have remained in the vicinity for two months. On January 13 I visited the pond with A. M. Bailey and E. G. Wright of the Chicago Academy of Sciences, and a short strip of motion film was made so we might have a permanent record of these fine birds wintering in the Chicago area.

W. I. LYON.

What Is the Answer?

By JAMES S. WHITE

The years of 1930 and 1931 have not only made history from the weatherman's standpoint, but from the ornithologist's as well. When, in recent times have we, in so short a time, experienced such varied and drastic reversals of weather form? The Summer droughts of these years have caused incalculable damage to certain species of swamp breeding birds.

Much has been said and written, as well as considerable time and money have been spent in making investigations regarding the welfare of our ducks. The outcome of these investigations were indeed startling, and the first move to help them was made by the United States Biological Survey, resulting in the shortening of the open shooting season to one month.

In spite of many newspaper reports to the contrary, ducks were not plentiful this year. However, there was no doubt that concentration of flocks occurred in and around suitable feeding and resting grounds because of the scarcity of such places. With the thousands of small farm ponds, lakes, creeks, and marshes dried to a crisp, it was only to be expected that such concentration would occur around suitable water. I have before me data which I believe to be fairly accurate, and if such is the case, the water birds have been dealt a blow that only years of good breeding conditions and conservation can heal. Some of this data, relating to percentages of important wildfowl breeding ranges in North America affected by the drought this year, averages as follows:

75%—Canvasback, Gadwall, Redhead and Ruddy.

60%—Shoveller.

40%—Baldpate, Blue-winged Teal, Buffle-head, Mallard, Pintail, and Wood Duck.

35%—Green-winged Teal and Lesser Scaup.

10%—American Golden-eye, Barrow's Golden-eye and White-winged Scoter.

None—American Scoter, Black Duck, Greater Scaup, Old-squaw and Surf Scoter.

After reading the above tables, try to visualize the vast number of other species that were also deprived of suitable nesting conditions, and of the millions of fledgelings that must have perished from want of water.

Most of my field observations are confined to swampy and wet areas, and I must say that this past Fall migration was disappointing to me where the water and swamp birds were concerned, and I am anxiously awaiting the Spring migration to see what that will tell us about these other swamp breeding birds, such as rails, snipe, herons, certain sparrows, etc.—certainly they also have had a severe setback in these years.

The Indiana Audubon Society

By SIDNEY R. ESTEN

The Indiana Audubon Society was organized in 1898. For many years its membership was small and its meetings, held yearly, attracted but few bird students. The yearly Bulletin was small and gained little attention.

From 1921, up to the present time, under the leadership of its president, Earl Brooks of Noblesville, the State Audubon Society has been growing in numbers and enthusiasm. The last meeting in Muncie, Indiana, in May, 1931, had about 150 people in attendance. The 1931 Bulletin contained over a hundred pages of interesting and valuable bird material. During the past year, over a hundred members were added to the roll, making the present membership over three hundred. In June, 1931, a bronze tablet attached to a native boulder was placed on the grave of Col. Isaac W. Brown at Rochester, Indiana. Col. Brown was for fifteen years, between 1899 and 1914, the time of his death, the original "Bee and Bird Man" of Indiana, going about over the country lecturing on the beauty and value of birds.

The 1932 meeting will be held in May at Crawfordsville, Indiana, the dates to be set later. At this, the annual meeting, general sessions will be held Friday afternoon, the banquet, Friday evening, a bird hike, Saturday morning and the final general and business session, Saturday afternoon. One of the features of the meeting this year will be a state-wide bird poster contest and exhibit and also, the annual bird photograph contest which was started two years ago. Mr. P. B. Coffin, formerly of Indiana, now of Chicago, was present at the meeting last year. We hope Mr. Coffin will again visit our meeting this year, and we cordially invite all other Illinois Audubon members to be present with us at Crawfordsville in May.

In conclusion, may I appeal to Illinois Audubon members to unite in a body behind the National Association of Audubon Societies and Dr. T. G. Pearson, who has given so much to National and International bird protection. Both Dr. Pearson and the National Association need and warrant the support of every bird student, especially at this time when unjust criticism and attacks are being made against it. These attacks are not only unwarranted, unjust and untrue, but are inspired by petty personal feelings and a desire on the part of four people to get control of the National Audubon Society, that they may use it to further personal ambitions and plans. United support of Dr. Pearson and each Audubon member will help defeat this attempt.

FIELD NOTES

Barrington

The Barrington Bird Club, Mrs. Robert Work, President, maintains a feeding station in a bit of woods near the cemetery and is able to report increasing bird population. The December records of the Club tell of a lower ebb tide of bird life than usual, as has been noted in various places in northeastern Illinois. The Barrington list includes the White-throat Sparrow and a lone Robin. The Cardinal is present and seems to be establishing itself in that area. In October a Goshawk was seen, also an Osprey, which was later shot by a farmer. A few Starlings are wintering in the vicinity. Starlings nested in a box at the home of the President of the Club, but a Grackle robbed the nest and it was abandoned.

Evanston Bird Club

The Evanston Bird Club during the year just past has held the even tenor of its way, but can not report any outstanding achievement.

An open meeting was held in the Unitarian Church House Friday evening, March 27, which was well attended. Mr. William I. Lyon of Waukegan was the speaker of the evening and, as usual, gave an interesting talk on his experiences as a bird bander. In addition to this, two reels of motion pictures which had recently come into the possession of the club were shown. These films were made by William L. Finley, one of the Screech Owl and the other of Humming Birds, both of which are excellent.

Copies of the Audubon Bulletin were mailed to all members. Our annual contribution to the Evanston Public Library was made. The slides were loaned to various organizations as usual, though we felt that they were not used as much as they should be. March 13 Mrs. Pattee gave a talk to the Lincolnwood Garden Club, showing slides selected from the fine collection owned by the club, to illustrate her remarks. A most responsive group of women made the afternoon seem well worth while.

Through the efforts of the Evanston Club, abetted by the Directors of the Audubon Society, the "Meadowbrook Bird Game," being displayed for sale by Liggett's Drug Stores, which was considered most unfortunate in its suggestions and pernicious in its psychological effects on the minds of children for whom it was intended, was withdrawn from sale.

As usual the Spring Bird Walks seemed a most successful enterprise. The interest has grown from year to year, and we now have an average of fifteen people on the walks, which occur Friday mornings during May.

—B. T. P.

Rockford

The Nature Study Society of Rockford has for the past three years taken part in the Annual Christmas census published in *Bird Lore*. According to the Rockford Morning Star, nine members of the Society were in the field last year on Dec. 27 and were able to report twenty-three species of birds seen, one lone Robin furnishing the major interest. Mrs. G. D. Sundstrand, chairman of the census takers, reported the territory canvassed as including Corey's Bluff, Prairie Road, Ingersoll Park, Black Hawk and Sinnissippi Parks, Alpine Heights and the road on the west side of Rock River as far as Macktown. At this place the census-takers took time out for a winter picnic and steak fry in the clubhouse, where County Forester T. G. Lindquist had a fire burning in preparation for their arrival.

The findings of the census are as follows: Forty Crows, one Rough-legged Hawk, one Sparrow Hawk, one American Osprey, a covey of Quail, one Screech Owl, one Kingfisher, one Red-bellied Woodpecker, three Hairy Woodpeckers, six Downy Woodpeckers, one Horned Lark, seven Blue Jays, one Tufted Titmouse, twenty-eight Chickadees, five White-breasted Nuthatches, one Robin, seven Starlings, sixteen Tree Sparrows, sixteen Redpolls, two Rusty Blackbirds, nine Juncos, three Cardinals, and about five hundred English Sparrows.

Miss Frances S. Dobson, Secretary of the Club, reports that the Starling made its appearance in that territory two years ago and is now seen in increasing numbers. The Western Meadowlark is a common visitor in the Spring. Quail are becoming quite plentiful, as they find protection in the various county forest preserves. These preserves are really refuges for wild life, as County Forester Lindquist is interested in this line of work.

The membership of the Rockford Nature Study Society is 35, with dues of one dollar a year. It has held regular meetings during the year on the first Saturday of the month. These meetings are varied to meet the needs of the membership, which is composed of both old and young. During the spring and fall there are hikes to forest preserves and nearby beauty spots, while in the winter city parks are visited and members open their homes for indoor meetings. This year, in addition to the study of trees, birds and wild flowers, the Society had a day for cultivated flowers, visiting the gardens in a city park and identifying as many as possible.

The Club has an honorable record for activities relating to conservation at home and elsewhere. It has a membership in the National and State Audubon Societies, the Illinois Academy of Sciences, and it gives to the Jack Miner Fund for feeding wild geese.

Carbondale

Mr. Carl Gower reports for Carbondale and contributes some unusually interesting observations about bird life at Horseshoe Lake in extreme southern Illinois.

Notes were kept of two field trips during Christmas week and although nothing unusual was observed, the separate records of these days may be of some interest:

December 26. Weather, fair. Blackcapped Chickadee, 6; Junco, 33; Crow, 7; Field Sparrow, 26; Blue Jay, 16; Tufted Titmouse, 1; Quail, 1; Downy Woodpecker, 2; Song Sparrow, 4; Goldfinch, 5; Horned Lark, 14; Robin, 2; Carolina Wren, 2; Cardinal, 6.

December 28. Weather, cloudy. Junco, 75; Crow, 24; Field Sparrow, 20; Blue Jay, 8; Tufted Titmouse, 5; Downy Woodpecker, 3; Song Sparrow, 3; Robin, 2; Carolina Wren, 3; Cardinal, 3; Bluebird, 3; Lark Sparrow, 8; Mockingbird, 1; Hairy Woodpecker, 1; Short-eared Owl, 2; Fox Sparrows are noticeably absent from these lists.

During the past year it has been my good fortune to make several trips to Horseshoe Lake, a State Game Preserve, about six miles from Mounds and fifteen miles from Cairo. This area includes an abandoned ox-bow bend of the Mississippi. The Lake, as the ancient channel is called, is three miles long and about a quarter of a mile wide. The enclosed land is an island when the channel is full and on this island of 1,300 acres the state officials have 400 acres of wheat and rye for the benefit of the great hosts of waterfowl that resort here. A fine stand of cypress trees fringe the shore of the lake and stand out in the channel. The whole area is of great interest to students of plant and bird life.

Of the rarer birds I have seen there during the past year, a flock of American Egrets are the most important. They were reported there in May and stayed until about Sept. 15, by which time, unfortunately, the shallow lake channel was entirely dried up. Besides the egrets there were about 50 Great Blue Herons, 25 Little Green Herons, and I saw one American Bittern about the last of July. On two different occasions (Oct. 2 and Nov. 26), I saw a flock of about 20 Black Vultures at this lake. They were easily distinguished by their white under-wing feathers. On Nov. 24 I saw three Pileated Woodpeckers in the woods adjoining the lake and on Dec. 11 there were about 3,000 Canada Geese feeding in the wheat and rye field on the island. On the same day I estimated the number of Mallards and Lesser Scaups on the lake at about 1,000. The keeper told me that there was one fellow among the geese about twice as big as the others and snow white. I conclude that it was a swan but I did not see it myself.

Mr. R. B. Miller, State Forester, commenting upon the area says that the forest on the bank of the lake is unusually rich and interesting and should not be cleared. It is a great place for cypress seedlings where they occur by the thousand. Some transplanted in the nursery at the State Forest near Jonesboro are doing well. The state game officials have built a house on the island for the caretaker but fortunately for the wild fowl they are leaving everything else undisturbed. It is a splendid haven for bird life.

The 1931 Season at Quincy

Mr. T. E. Musselman, a member of the staff of the Gem City Business College and a lecturer on natural history subjects, contributes these notes from his 1931 diary:

Redbirds and Black-capped Chickadees were singing on January 1, 1931. An unusually serious epidemic of tularemia has afflicted Adams County rabbits and squirrels this winter. Likewise a total of two dozen persons were affected from handling the sick animals. Jan. 13, I saw my first Song Sparrow (singing). Jan. 17, saw a female Northern Pileated Woodpecker. It flew with characteristic wave-like flight, continually calling a single harsh note as it flew. It alighted on its nest tree with a last grand swoop. Heard my first Carolina Wren. Two Robins seen today. Jan. 24, although there is no evidence of a general flight, a Snowy Owl was shot today. Wing spread 4 feet, 10½ inches; weight 4 pounds. This was our only 1931 record.

Jan. 31, first Bluebirds. Feb. 1, saw Flickers and Red-headed Woodpeckers. Probably winter residents. Feb. 2, first Killdeer and Herring Gulls. Feb. 7, big flocks of Red-winged Blackbirds (females) flying over. Feb. 8, first Robin singing. Chickadees are all busy singing their "pe wee" song. Feb. 12, big flight of Pintail and Mallard Ducks. Feb. 19, Maples in bloom. Feb. 22, Redpolls are here tearing the Sycamore seed balls to pieces. Feb. 28, first Mourning Doves. I captured a male Pintail Duck in one of my traps which carried a bronze legband with the number A666242. It was banded just the previous week on the McIlhenny Game Preserve in Louisiana. Two nests of Great Horned Owls hatched this day. Meadowlarks, Doves and Red-headed Woodpeckers arrived today in numbers.

March 4, Purple Finches arrived today. They are eating the hard Maple buds. March 11, the first Shrikes. March 13, Great Blue Herons arrived last night. March 14, first Chewinks in the brush. Green-winged Teal are dabbling in swamps. Large flights of Waxwings, and Grackles, Sapsuckers, Flickers. March 15, Fox Sparrows and White-throat Sparrows arrived over night. March 21, Elm trees in bloom. Field Sparrows

here and singing. Flickers, Doves and Carolina Wrens singing noisily. March 22, first Phoebe. Hylas singing. Newts active in springs and water holes. Antiope butterflies abundant. March 26, thousands of Robins arrived. March 28, Bewick's Wren evident with its merry song. Shoveller Ducks here. A big wave of Fox Sparrows made bird-banding a busy affair. Fox and White-throat Sparrows all singing. March 31, thousands of Lesser Scaup Ducks (Blue-bills) arrived with some Coots and Cormorants.

April 1, found a secluded retreat that harbored about thirty plants of the dwarf white Trillium. They grow on a limestone hill and never have I seen a prettier flower. This flower association has been known to be intact for 75 years. April 2, first thunder and lighting. April 4, Hepaticas in bloom. April 6, Pieris and Painted Lady Butterflies are flying about. April 7, first Brown Thrasher. Shadbush and Bloodroot in bloom. A Pied-billed Grebe tried to keep me from making a first record. April 11, Thrashers singing. Dragonflies are flitting over the swamps where the Yellow-legs are probing for insects. Cottonwood and Box Elders in full bloom. Crappies and sunfish are biting. Juncos left for the north today. First Bluebird eggs in three different boxes. April 12, Apricot and Plum trees in bloom. April 13, Adder's Tongue in bloom. First Vesper Sparrows. April 14, hard Maples in bloom. Bank Swallows here. April 15, Myrtle Warblers here. April 16, House Wrens and Swifts arrived. April 17, Mr. Minear, biology teacher in the Quincy High School, captured 26 rattle snakes today. April 19, Morel mushrooms plentiful. April 26, Gyromitra Esculenta mushrooms very large and plentiful. Grow from base of decaying logs. Cardinal has a complete nest in a barberry bush with full complement of two eggs and one Cowbird egg. As usual the female employed much paper and even tinfoil from chewing gum wrappers in building her nest. Blue-winged Teal here. April 27, Rose-breasted Grosbeaks here. Apples, Pawpaw and Sassafras in full bloom. April 28, Warbling Vireos here. Streaked Theclas (Hairstreak butterflies) are using the Cedar trees today. April 29, Baltimore Orioles arrived. April 30, Great-crested Flycatcher comes and takes possession of its box on front Elm tree.

May 1, Black-and-white Warblers and Yellowthroats here. Bluebells in blossom. May 2, Indigo Buntings, Dickcissels, and Wood Thrushes arrived. May 3, Kingbirds, Orchard Orioles and the full complement of warblers came in on last night's south wind. White-throats left last night. Wild Crab ready to burst into bloom. Wild Pansies are at their best, likewise Yellow Star-grass and Dogwood are wonderful. May 5, Wood Pewees and Bobolinks surprised me today. Nest of Cardinal eggs hatched today, one day before the Cowbird egg. I disposed of the Cowbird. May 8, Catbirds arrived and also a small flight of White-throats. Today my

automobile moved parallel to the flight of a Dove at forty miles an hour. May 10, Nighthawks are calling in the night sky. May 11, tremendous growth of Morels. Found a Box Turtle. Shooting Stars at their best. Young Great-horned Owls ready to fly. May 14, Humming Birds and Red-eyed Vireos here. Young Bluebirds out of the nest. Buckeye in full bloom. May 18, Grey-cheeked Thrush singing. The pungent odor of the Black Locust makes the air heavy. Wild Cherries also in bloom. May 22, Cardinal nesting a second time. The male bird is again in full song. Never before have I seen a Cardinal sing in the air, but today a brilliant male flew up 500 feet singing throughout the flight. The recent moonlight has stimulated night singing, particularly among the Catbirds and Bewick Wrens. One Catbird on the Brackensick farm sang for an hour and fifteen minutes, actual time, on the night of the 20th. On May 24, two Hummingbirds fought like miniature airplanes for possession of my columbine beds. The smaller "plane" was at length successful in driving the larger away.

June 9, Catalpa and Persimmon trees in full bloom and Spiderwort on the 12th. The hazy bloom of the Meadow-rue is lost in the gray of the sky. Bindweed has started its strangling process among the blooming Wildroses and Stargrass. Daisy Fleabane and Yarrow everywhere add white to the scene while White Poppies (seeded from shipments of western hay) look like beds of big snowdrops in the green. Wild Parsnips and Yellow Wild-clover add yellow to the scene. Black-eyed Susan and Cone Flower are in Bloom. June 14, Bluegrass is in full seed. June 16, my Bluebirds are nesting again. Today a Box Turtle was brought to me. On its shell was carved "1911—E. W. & J. H." (a lovelorn couple, perhaps). June 18, the delicate odor in the air tells of blossoming Wild Grape, the finest of our wild perfumes. June 19, young Nighthawks are hunting shade on the tall buildings. The mothers let me approach within two feet before leaving. One bird alighted on an electric light wire, lengthwise, of course. June 20, found the nest of a Prothonotary Warbler in an old mushroom can sitting on the shelf of a fishing camp. Four young birds were about ready to fly. The mother would approach and feed the young while I stood within three feet of the can. The father was more cautious.

August 2, Cecropia and Polyphemus Caterpillars are spinning cocoons. Swifts are flocking. August 14, several flocks of immature Little Blue Herons are seen daily on sand bars. August 21 found a nest with 13 fresh Quail eggs today. Young Cardinals have left their nest. August 25, Purple Martins have gathered by the thousands and load the telephone wires.

September 1, a farmer brought me an albino Red-tailed Hawk. Caspian Terns here on the bars. Sept. 6, saw 13 American Egrets, two Great Blue Herons and four Little Blue Herons on one mud bar. Sept. 1, on

Buckbrush Pond I counted 148 Great Blue Herons, 64 American Egrets, to say nothing of a world of bitterns, ducks and snipes. Egrets have been more numerous here this year than ever before. Sept. 15, the first big flight of White Pelicans went over today. I expect the migration yearly from Sept. 14 to 16 and it seldom varies. Sept. 20, the Fall shuffle of Quail went over today. Some confused birds alighted in town, where they called to their mates the greater part of the day. Sept. 21, egrets left last night. Caught a Bullfrog containing a large "crawdaddy" and a full-grown male English Sparrow. Monarch butterflies on their southern migration.

Oct. 10, White-throat Sparrows, Tree Sparrows and Juncos are back. Hickory nuts are falling—small and wormy this year. Chestnuts are very good, however, and meaty. Campestris mushrooms are very numerous. Oct. 14, Chimney Swifts left, one day sooner than the average. I am glad to report the increase in Upland Plover for the year. I know of a half dozen nests near Quincy. Oct. 27, migration of Horned Larks today. Several Crested Cormorants have been captured recently which flew into wires.

Nov. 1, many Loons on the river. Nov. 3, good flight of ducks. Nov. 11, a hunter killed a Blue Goose, the first in several seasons. With the warm season many Spring birds have lingered. During the Christmas holidays I have seen numerous Bluebirds, Robins, Grackles and also some Doves, Sapsuckers, a Brown Thrasher and a Mockingbird. Cardinals have sung sporadically throughout the early winter, so I hope a severe freeze does not kill them.

Athens

Mr. Watson Hall again reports for his area.

The exceptionally mild Fall weather had a notable effect on the bird life around Athens. On December 22 the following were noted: Mallard, 20; Sparrow Hawk, 1; Mourning Dove, 29; Flicker, 23; Prairie Horned Lark, 55; Robin, 19; Bluebird, 8; Cedar Waxwing, 8; Purple Finch, 2; Meadowlark, 12.

Two Bald Eagles, one an adult, were seen recently. Quail show no increase over last year when they were considered scarce. Rabbits are scarce this year. Starlings nested here for the first time this year. The winter flocks have greatly increased in numbers. A neighbor captured a banded Starling on Feb. 19, 1931. He was notified that it was banded at Fort Smith, Arkansas, Feb. 8, 1930. The bird was uninjured and was released the following day.

Amid the prevailing pessimism regarding the disappearing ranks of

waterfowl, it was interesting to note the usual numbers of ducks and geese. No Snow or Blue Geese were seen, however. The area covered in this report is in the valley of the Sangamon River, northwest of Springfield.

Port Byron

Mr. J. J. Schaefer, a frequent contributor, again reports for his area along the Mississippi River in northwestern Illinois.

The weather has been very mild during December. Dandelions in bloom on Christmas and bees were flying about on several days. Prairie Horned Larks were heard singing on some of the warmest days of the month. During Christmas week the following birds were seen and heard: Cooper's Hawk, Sparrow Hawk, Rough-legged Hawk, Bob-white, Screech Owl, Hairy, Downy, Red-headed and Red-bellied Woodpeckers, Northern Flickers, Prairie Horned Lark, Blue Jay, Crow, Tufted Titmouse, Chickadee, White-breasted Nuthatch, Starling, Goldfinch, Tree Sparrow, Junco, and Cardinal. No Brown Creepers were seen. Juncos are scarce and the Great Horned Owls are all gone. A farmer living about two miles north of here has a steel trap on a pole and is catching them as fast as they come. Cardinals and Titmice are more common than in other winters. A few Starlings are here and have been reported as nesting in the area for the past three years. One farmer reported that the Starlings killed a Bluebird on his place. He then killed the Starlings. Nighthawks were common during the Fall migration, but no Tree Swallows were seen.

Specimen "last seen" records from field trips during the past three months may be of interest:

November: Bronzed Grackles, 24; Rusty Blackbirds, 23; Killdeer, 21; Red-winged Blackbirds, 20; Marsh Hawks, 12; Bluebirds, 6.

October: Robins, 31; Meadowlarks, 25; Myrtle Warblers, 17; Ruby-crowned Kinglets, 15; Phoebe, 7; Chimney Swifts, 2.

September: House Wren, 30; Rose-breasted Grosbeak, 29; Mourning Dove, 26; Catbird, 23; Brown Thrashers, 23; Nighthawk, 15; Ruby-throated Humming Birds, 14; Crested Flycatchers, 14; Cliff Swallows, 8; Baltimore Orioles, 8; Kingbirds, 3.

One Western Meadowlark was heard Oct. 16 and during the Spring migration. Double-crested Cormorants were seen flying over on April 13 and Oct. 14. We had a very large colony of Cliff Swallows this year. On May 31 about 256 nests were finished under the eaves of our barn. During the very hot weather the latter part of June many of the young swallows came out of the nests too soon and perished.

Bird Notes from Jo Daviess County

Misses Blanche and Bertha Cramer report for the Mt. Carrol area.

Birds did not seem to be very much in evidence during the holiday season this year. The ones that feed regularly at our feeding shelf were present in about the usual numbers, but we either missed the field birds or they were not there.

At our shelf there were several pairs of Chickadees (one with a crooked tail having returned for a third season), two or more White-breasted Nuthatches and a pair of Downy Woodpeckers. One or two Hairy Woodpeckers, a Red-bellied Woodpecker, a few Juncos and a Cardinal feed on the ground or in the trees near by but do not come to the shelf.

About the barn there are the usual House Sparrows, clouds of them, and two Starlings hide in the hay barn during the night but disappear during the day. Two pairs nested in old Woodpecker holes last Summer. We shot one pair and one from the other pair. The widow returned with another mate and we shot both of those. Both broods of nestlings died, so these two must be new arrivals. Less than a mile south of us, at the Croften farm, they have been nesting for several years, but none have been seen this Winter. Blue Jays are both seen and heard frequently. This is the third year that we have seen the Red-bellied Woodpecker on our farm. They nested twice in hollow trees near the building.

A flock of ten Canada Geese were feeding in a grain field early last Fall. They sometimes fly over but are not often seen on the ground, as most of our waterways are small creeks. Quails are quite plentiful but do not come in to feed, as they do when there is much snow. A pair of Red-tailed Hawks which build year after year in our timber can be seen almost any day sailing about over the fields and woods screaming as they go. One afternoon we heard some Blue Jays doing a very good imitation of the Red-tail's scream but not nearly so loud. Nearly every farm in our neighborhood has its wood lot and in nearly every one Great Horned Owls can be heard calling to and answering each other at nightfall with their deep-voiced "Whoo! Whoo! Whoo!" Crows were very numerous, great flocks congregating noisily in the woods or on the fields. We have never seen them do anything but appear to be in conference. Once in a while a few Goldfinches carried on a musical conversation over our heads in the tree tops. Our biggest find was a flock of about fifty Tree Sparrows which fed day after day over a broad, grassy field where there were plenty of weed seeds. They are lovely to watch and their soft musical choruses heard as they move leisurely along give one the feeling that an old-fashioned Christmas card has come to life.

Birding at a Fish Hatchery

Miss Frances Dobson, Secretary of the Nature Study Society of Rockford, contributed to Bird Lore for September-October a very interesting report, which is reproduced here:

Since the establishment of a State Fish Hatchery near the city, the nature students of Rockford have had a wonderful opportunity to study shore- and water-birds during the Spring migration periods.

About five years ago one of our bird lovers first noticed a few ducks and sandpipers near the pond which then comprised the hatchery. Since that time, with the addition of more ponds, the birds have come in increasing numbers, until this year they were there literally in hundreds.

The ponds are drained about the middle of April and the fish removed and used for stocking nearby streams and lakes. It is then that the waders come in flocks by the hundreds. Then we find the Yellow-legs, both Greater and Lesser, the Pectoral Sandpiper, the Solitary, and a little later the Least and Spotted Sandpipers.

The ducks and terns come in smaller numbers. This year the Mallard, Scaups, Blue and Green-winged Teal, the Buffle-head, Pintail and Shoveller have been among those seen. For about ten days a Lesser Snow Goose made the pond his resting place. Whether he strayed from his flock or stopped because of injury is not known, but all who made a trip to the hatchery during that time were rewarded by a glimpse of him.

On May 4 three female Wilson Phalaropes were seen, the first to be reported in this region, turning and turning like tiny mechanical toys which never run down. The supposition is that they turn in this manner on fresh-water ponds to stir up the water in order to bring food to the surface, but whatever the cause it is a strange sight to see.

Of the plovers seen, the most interesting was the Semi-palmated, which darted here and there along the water's edge in search for food. The Black-bellied Plover made his appearance on May 12 and remained for about ten days. As he was the only one of his kind and stayed in about the same general location he was very easy to see and study. His strange markings made him conspicuous. A Florida Gallinule as well as several Coots paid the hatchery a visit. An Osprey always seemed to be on duty, wheeling about over the ponds in search of prey. Last year the oddly marked turnstone was seen, but was not reported this year.

It is hoped that in coming years more and more birds, especially those of the rarer species, will find their way to this spot to rest after their long flights and delight the students of bird life.

Rose-breasted Grosbeaks in Evanston

Readers of Bird Lore no doubt perused with much interest Evelyn Campbell's account of "An Intimate Summer with Grosbeaks" in the May-June number, 1931, as well as her added notes on "The Return of the Grosbeaks" in the July-August issue. Mrs. Campbell has prepared for the Bulletin a brief resumé of the whole experience and has added a last chapter to this remarkable "true story" of her family gathering of Grosbeaks.

Each year, Rose-breasted Grosbeaks had made occasional visits to our garden, so, when on May 4, 1930, a male was seen in a tree near the back porch, it was merely recorded as a first appearance for that season.

A few days later a female appeared and soon they had discovered hanging nearby two seed cups containing sunflower seeds. These seed cups were small wire baskets, suspended near the house, which had been provided for the Chickadees and other Winter birds. From that time on the seeds proved a great attraction and the number of birds increased to four males and three females.

They were exceedingly tame and it was possible to walk very close to them and to fill one cup while a bird was feeding on the other, which was but a foot away. The birds came early and very frequently throughout the day and fed until dusk, eating between two and three pounds of seed a week.

During the fourth week of June a baby bird put in its appearance from somewhere and in two weeks' time there were four young coming with the seven adults. By the end of August the adults had departed, but the young remained until September 27.

The following Spring, 1931, we looked forward to the return of our Grosbeaks and the first week of May found five cups filled and awaiting their arrival. May 4, 5 and 6 and no Grosbeaks, but on May 7^a we were thrilled to find a male on a cup and four days later there came a female.

Two days later there were two males and two females and two days after that four males and three females were seen at one time. As their habits were the same as those of the birds the previous year and they were just as tame, we liked to think they were the same birds.

On June 23, two blocks away I found a nest fifteen feet up in a pear tree and nearby in another tree a very young Grosbeak.

July 4 a young one appeared in the yard, it being a week later than the first seen the year before. On the following day there were two young birds in the garden, and three days later four young were coming with the seven adults. August 7 there were 5 young making daily visits.

The first Summer they were very friendly toward one another, but the second year, possibly because of their increased numbers, they would fight for their places upon the cups. So, seed was placed upon the window sill and upon the porch rails and by the end of August there were as many as ten, twelve, and on several occasions, fifteen, feeding at one time on the porch rails and the floor.

By the middle of September there were no more than four or five coming daily, and on October 5 there was a last record of two males and one female.

EVELYN CAMPBELL.

Nesting Cardinals

For a number of years past we have had the Cardinals about in the Winter time, usually a pair. They have patronized the feeding shelf for sunflower seed and given us frequent glimpses of their gorgeous color against the background of snow. Usually by February his lovely whistle has been heard and the pair has remained in the neighborhood long enough for us to enjoy quite a bit of the Spring song.

But never until 1931 have they nested near us in adjoining gardens and stayed throughout the Summer. For the first nest they chose a thick honeysuckle bush and placed it about five feet up. Friday, June 5th, we found a baby Cardinal in the shrubbery, very tiny and evidently just off the nest. Next day and for many days afterward it was evident that young were being fed under cover of the grape vine tangle nearby. We discovered only two. On the 12th I had a good look at one of the youngsters. He had no color, but showed the crest and bill characteristic of his parents.

Friday, the 13th, while young of first brood were still being fed, my neighbor reported that the Cardinals were beginning to build again in her white cedar, a little higher from the ground than before. Tuesday, July 7th, two babies again appeared—and such excitement. On the 24th one of the older young ones was brought to the shelf for seed, which the parent cracked for him. August 6th the male and two young were at the shelf, one being fed, the other able to feed himself.

Wednesday, August 19, I discovered the female on a new nest in shrubbery very near the entrance of my neighbor's house. When the family returned from a short absence, the nest was deserted. This may not be unusual, but we were certainly very much surprised to find this third nest.

We now consider the Cardinals permanent residents in the neighborhood and are ever on the lookout for their presence.

BERTHA PATTEE.

Crested Flycatchers

The Flycatchers, whose nesting in our yard was described at length in last year's Bulletin, again occupied the Meriden nesting box. And the interesting thing is that the young took their flight on exactly the same date—July 12th.

BERTHA PATTEE.

Highland Park

The numbers of birds noted at our feeding table thus far this Winter have been far below those recorded in previous years. This is probably due to the open Winter and to the accessibility of food in wood and fields. There has been the usual number of a few of the commoner species. Four Chickadees have been constant visitors at the shelf. Two pairs of Downy and Hairy Woodpeckers, two or three White-breasted Nuthatches, a few Juncos and four Blue Jays appear regularly at the shelf whenever the weather becomes inclement. During the first snow, early in December, a single male Starling came to the feeding shelf with some English Sparrows. One Purple Finch visited the vicinity of the feeding shelf early in December, but two flocks of these birds made their appearance at another place in this area. A recent field trip along a wooded strip bordering the Skokie Slough showed that Tree Sparrows are here in flocks and probably as well represented as in past years, and the same seems to be true of Juncos, but the patronage at our feeding tables does not reveal this.

Robins and Bluebirds lingered until the third week in November. Goldfinches were numerous in the area and large flocks of Grackles and Redwings were about until late in November. A single Snow Bunting was reported on Nov. 10, but no others have been seen.

BERT LEECH.

Notes on Bird Life in Lake County

The observations on which these notes are based have largely been made in southeastern Lake County and adjoining portions of Cook County. Highland Park and Deerfield are included in the area, about 30 miles from Chicago, and the shore line of Lake Michigan in Lake County. The terrain is rolling and frequently wooded, oaks being the most common trees.

During the past two winters Lake Michigan has been "open," which means that ice has not formed permanently at the shore line and consequently many ducks have wintered along shore. Those more commonly

found are Red-breasted Merganser, American Merganser, Old-squaw and Golden-eye. Dec. 2, 1930, I saw seven Old-squaw Ducks riding the breakers off the Highland Park shore together with what I think was a scoter. American White-winged and Surf Scoters have also been reported from this area, but I have not had the opportunity to see these hardy swimmers. The Harlequin Duck has also been reported, but my many visits to the shore have not revealed it. In the Winter of 1929 a specimen of the American Scoter picked up on the shore near Fort Sheridan was brought to me, but not in condition for preservation.

Gulls have found the city refuse dumps, and many Herring Gulls with a few Ring-billed Gulls can be seen doing scavenger service there. Bonaparte Gulls are scarce in Winter, although they can be seen in numbers in the Fall. The only species of geese in the area, the Canada Goose, has become uncommon in comparatively recent years because the farm lands where they used to feed have been subdivided. The killing of six specimens at Wheeling in Cook County on Nov. 17, 1930, was considered quite unusual. In the Fall many Mallards, Pintails and Red-heads are shot in the lake region in this country, together with Coots and rails, but my impression is that none of these birds is as common as six or seven years ago.

Of the birds of prey, the hawks are well represented here—the Marsh, Red-shouldered, Rough-legged, Red-tailed, Sparrow, Broad-winged, Sharp-shinned, Cooper's and Goshawk. I have found nests of all of these except the last three. The Goshawk is probably only an irregular Winter visitant. An interesting little pair of Sparrow Hawks tried to nest within fifty feet of our house in June, 1930, but I preferred to have song birds for neighbors and so, regretfully, I had to take the eggs. No other birds would have been found nesting in the neighborhood if the Sparrow Hawks had been left undisturbed.

Owls are well represented here, the Screech, Long-eared and Short-eared being more or less common, with the Saw-whet occasionally identified. The Great Horned Owl is sometimes seen. In winter the Downy and Hairy Woodpeckers are common, the Red-head frequent and the Northern Flicker only casual. At times the Arctic Three-toed Woodpecker has been reported. In this immediate area the only record of the Red-bellied Woodpecker is that of Colin Sanborn of the Field Museum, who reported it in the early Spring of 1929.

In my notes for Feb. 18, 1929, is entered what I believe to be a "first seen record" for Lake County. Very early that morning I left home to look at some traps for small mammals I had set out in an old bog situated in a deeply wooded section north of Deerfield. At that early hour the Tree Sparrows and Juncos appeared as so many walnuts on the

brush through which I was tramping, but when the sun came up over Lake Michigan and shone in the treetops it started the birds like a switch starts the wheels in a factory. Chickadees, Goldfinches and Blue Jays made themselves known. Soon I heard a new note, a very peculiar call and on investigating its origin I found a lone Starling perched high in an oak tree. It was my first Starling and probably one of the very first members of that tribe to reach Lake County. I am sure he scouted the way for his fellows, for in a few days dozens of these pests were seen in our area. On June 15 following, I found a nest containing five Starling eggs. During that Summer other nests were found in the vicinity. We now have to reckon with the Starling as a permanent addition to our bird life.

The Tufted Titmouse, which is more or less common not far south of our area, is comparatively rare here. I have only one record, that of a specimen on a feeding shelf at Highland Park in December, 1930. A number of northern visitors come into this county each year, but usually their identification is only by accident. The list includes the American Crossbill, Evening Grosbeak, Snow Bunting, and Bohemian Waxwing, and the possibility of meeting these makes mid-Winter field trips attractive. I have never been able to find other than the Waxwings, but I live in hopes. During this present mild Winter one is able to include in one's list a number of our Summer birds that usually leave for the South in severe weather. Thus there are now here straggler Meadowlarks, Bluebirds, Catbirds, Brown Thrashers, Robins, Song Sparrows and Bronzed Grackles. I am hoping if severe weather finally comes there will be an advance warning.

JAMES MOONEY.



Photograph by Alfred M. Bailey

THE KILLDEER AND ITS YOUNG

The Saw-whet Owl at Glen Ellyn

The addition of a new bird, *C. a. acadica*, to our local fauna seems an event worth noticing, especially when it takes place on one's birthday, Nov. 2, 1931, as so happened, and perhaps fittingly referred to here as the birth of a new species, locally at least.

This was due to the luck and experience of my sharp-eyed bird friend, Harry G. Aberdeen, who in walking hurriedly south on Forest Avenue in the early forenoon of that day spied it in a small-sized Maple not far from the sidewalk, but not being quite sure of his identification, a description of the Owl was given over the 'phone, from which it was quite easy to make out as being the bird named.

Unable to visit the place immediately, the writer did not go there until about an hour later and found it in the same spot designated, pointing it out to a friend with him at the time, but with some difficulty, so well was it concealed beneath a spray of leaves the wind almost constantly blew over it.

As was rather expected, it proved to be an adult Saw-whet Owl. Quite strangely, too, this happened on the home-grounds of a neighbor and friend, S. T. Jacobs, where on the night of Oct. 18th, about 9:30, his son Dana discovered a large Opossum (*D. virginiana*), a good description of which was given to the writer later, and, in this connection, that also may be remarked on as a rare visitor to these parts.

Meadowlarks were singing joyfully the forenoon of Dec. 17th, a generally fair day with a temperature of 40 at 2 P. M., wind W. by S.W.; they were also reported as seen in the same locality about a week before to the number of a dozen. A pair of Starlings came quite regularly to the home of my informant also. On Dec. 3rd a male Flicker was seen by the writer from his chamber-window puncturing a persistent pear hanging to a tree close by. A Bronzed Grackle has been reported seen Dec. 5th, a small thrush also, possibly the Hermit, though the writer is inclined to believe it was a Fox Sparrow instead, which sometimes winters here in limited numbers. An occasional Junco is in evidence now and then, some Tree Sparrows, a few Blue Jays; three Crows are spending the season, departing each afternoon for a roost several miles south of here. Dec. 23rd a Brown Creeper was seen. We, of course, have regularly with us some Downy and Hairy Woodpeckers and a couple of White-breasted Nuthatches, also several Cardinals, for the most part highly colored males.

BENJAMIN GAULT.

Chicago Region Christmas Week Bird Census

It has been the custom of the members of various local Audubon Societies to make a Christmas Bird Census, and many of these records have been published in *Bird Lore*. It seems desirable that the members of the Illinois Audubon Society should make such a list each season, with the results to be published in our *Annual Bulletin*. In a period of years we will have many noteworthy records. The writer has been compiling lists for *Bird Lore* for several seasons and this year's reports are more unusual than last, though not surprising, considering the mild weather this region has experienced. A walk afield during the holidays produced lists more like those of early Spring than of mid-Winter. Between December 20th and January 1st I have had reported to me or observed the following list, totaling 39 species, not including introduced species:

Horned Grebe	Blue Jay
American Merganser	Crow
Mallard	Tufted Titmouse
Scaup Duck (?)	Chickadee
American Golden-eye	White-breasted Nuthatch
Old-squaw	Brown Creeper
Marsh Hawk	Robin
Red-tailed Hawk	Bohemian Waxwing
Coot	Red-winged Blackbird
Herring Gull	Eastern Meadowlark
Ring-billed Gull	Bronzed Grackle
Bonaparte's Gull	Goldfinch
Barn Owl	Pine Siskin
Belted Kingfisher	Snow Bunting
Hairy Woodpecker	Tree Sparrow
Downy Woodpecker	Slate-colored Junco
Yellow-bellied Sapsucker	Song Sparrow
Red-headed Woodpecker	Swamp Sparrow
Prairie Horned Lark	Cardinal
Northern Flicker	

Herewith are the Christmas census lists, reproduced as received by me and also the list of the group of which I was a member:

LaGrange, Illinois (3 miles along Salt Creek), December 25: Clear, ground bare—Red-tailed Hawk, 1; Flicker, 2; Hairy Woodpecker, 3; Downy Woodpecker, 10; Blue Jay, 7; Crow, 10; Tufted Titmouse, 15; Chickadee, 25; White-breasted Nuthatch, 9; Red-winged Blackbird, 2;

Goldfinch, 100; Tree Sparrow, common; Junco, common; Song Sparrow, 6; Cardinal, 12. Observers, A. M. Bailey and Fred S. Lodge. December 20: a Belted Kingfisher. January 3: a Saw-whet Owl.

Chicago, Illinois (from Riverside south through forest preserve and surrounding prairie), December 26, 1931, 8:30 A. M. to 2:30 P. M. Weather clear, wind south, light; temperature, 32 degrees at start, 40 degrees at return. Eleven miles on foot, observers in two groups: Hairy Woodpecker, 1; Downy Woodpecker, 8-10; Red-headed Woodpecker, 1; Prairie Horned Lark, 2; Blue Jay, 10; Crow, 2; Tufted Titmouse, 8; White-breasted Nuthatch, 3; Brown Creeper, 2; Starling, 3; Tree Sparrow, 35-45; Junco, 30-45; Song Sparrow, 2; Cardinal, 4; Chickadee, 10. Total, 15 species, about 100 individuals. On December 25, in Lincoln Park; Scaup Duck, 1,200 plus-minus; Old-squaw, 10; Herring Gull, 100 plus-minus; Bonaparte's Gull, 200 plus-minus; Snow Bunting, 25 plus-minus. Observers, Ada Ellen Lilly, Florence A. Lilly, Mrs. Elsie U. Lilly, A. W. Lilly.

Millers Beach, Indiana, December 26: Horned Grebe, 3; American Merganser, 100; American Golden-eye, 1; Herring Gull, 3; Ring-billed Gull, 3; Bohemian Waxwing, 30; Snow Bunting, 5; Tree Sparrow, 10. Observers, Amy G. Baldwin and Belle Wilson.

Orland Slough, December 27, 7:00-9:00 A. M. Temperature, 32 degrees, southeast wind, cloudy: American Crow, 10; Tree Sparrows, numerous; Swamp Sparrow, 1; Blue Jay, 1; Mallard, 1; Downy Woodpecker, 2; Hairy Woodpecker, 3; White-breasted Nuthatch, 3; Meadowlark, 1; Cardinal, 1; Chickadee, 4; Coot, 100-200; Goldfinch, 1. Observers, P. W. Lewis, LaGrange, Illinois; F. C. Whitehead, Riverside, Illinois.

River Forest, Illinois, December 26, 1:00 to 3:30 P. M. Temperature, 40 degrees, sunny, no wind; Thatcher's Woods Forest Preserve between Division St. and Lake St.: 3 Crows, 3 Cardinals, 6 White-breasted Nuthatches, 5 Red-breasted Nuthatches, 1 Brown Creeper, 4 Song Sparrows, 25 Juncos, 3 Downy Woodpeckers. Observer, C. W. G. Eifrig.

Thatcher's Woods, River Forest, Illinois, January 1, 1932. Temperature, 40 to 43 degrees, with light, drizzling rain: Chickadee, 3; Crow, 6; Blue Jay, 2; Cardinal, 2; Brown Creeper, 3; White-breasted Nuthatch, 1; Downy Woodpecker, 2. Observer, Carlyle Morris.

Morton Arboretum, near Lisle, Illinois, January 3, 1932, 10:45 A. M., to 1:10 P. M. Temperature, 25 to 27 degrees; cloudy: Tree Sparrow, 28; Slate-colored Junco, 11; Pine Siskin, 8; Crow, 3; Downy Woodpecker, 1. In regard to the Pine Siskins, Mr. Carlyle Morris writes: "From a distance, we at first thought these birds were Goldfinches, but on getting nearer I could see the streaks, almost stripes, on the bodies. I looked at the heads to see if they might be Lesser Redpolls, but there

was no sign of pink on the crowns. The Siskins were feeding on some kind of berry on a medium-sized tree which stands near a small body of water. The birds moved about a good deal, but kept together in their flock formation. Finally they flew off toward the northwest in a compact little squad (of eight). I believe this is the first time I have ever positively identified this species and so got quite a thrill." Observers, Mr. and Mrs. E. T. Baroody, Mr. Higgins and Carlyle Morris.

Waukegan, Illinois, December 27, 10:30 A. M. to 4:30 P. M.; cloudy to clear, wind light S.E. to S.W. Temperature, 36 degrees at start, 40 degrees at finish; twelve miles on foot: Lesser Scaup Duck, 3; Marsh Hawk, 2; Herring Gull, 6; Barn Owl, 2; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 4; Crow, 16; Eastern Meadowlark, 1; Bronzed Grackle, 6; Tree Sparrow, 51; Slate-colored Junco, 7; Observers, Stephen S. Gregory, Jr., Walter T. Fisher, Sterling Dickinson, and James S. White.

Yellow-bellied Sapsucker and Robin were reported by Mr. Parker Blair of Winnetka; Kingfisher reported by Mr. A. M. Bailey and Mr. Fred Lodge on Salt Creek at LaGrange, December 20th, and a Saw-whet Owl January 3. I visited Lincoln Park on January 1 and found approximately 2,500 Bonaparte's Gulls in Belmont Harbor and along the Lake Front.

Should I have received as many Christmas census reports as I expected, the above list would probably have been increased by several species. As it stands, this list of 39 species reported by so few observers exceeds ordinary expectation.

Of our regular Winter visitants it appears, from personal and reported observations, that some of these are notably scarce, such as American Merganser, Red-breasted Merganser, Scaup Duck (with one exception; see above census report by Lilly), American Golden-eye, Old-squaw, White-breasted Nuthatch and Junco. Our Winter ducks appear to be the scarcest of all. Of those species ordinarily common on our lake front at this time of the year, they are represented in numbers in the above Christmas census list as per figures or notations as follows:

American Merganser, 100; Red-breasted Merganser, none; Scaup Duck, 1,203 plus-minus; American Golden-eye, 1; Old Squaw, 10; White-winged Scoter, none.

JAMES S. WHITE.

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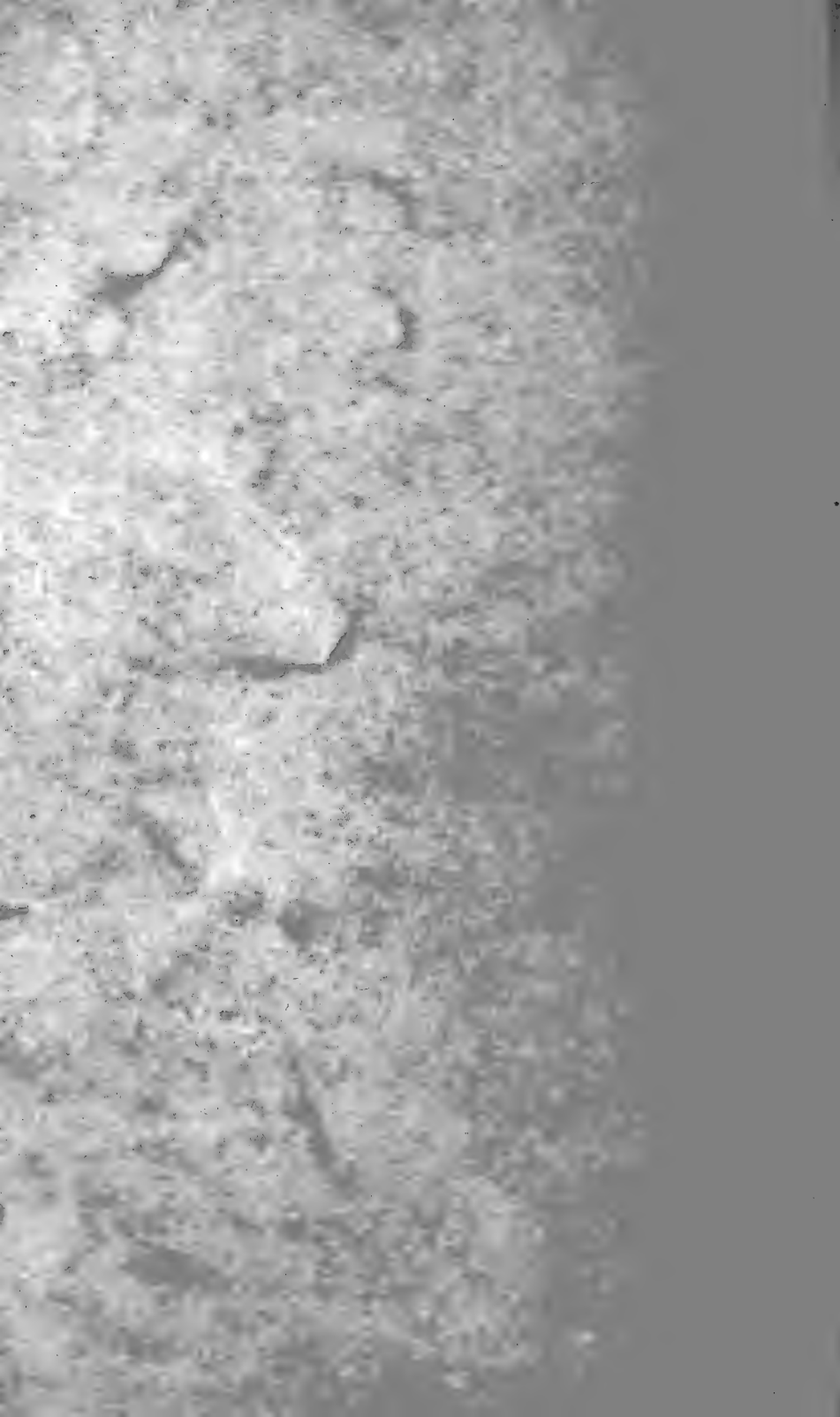
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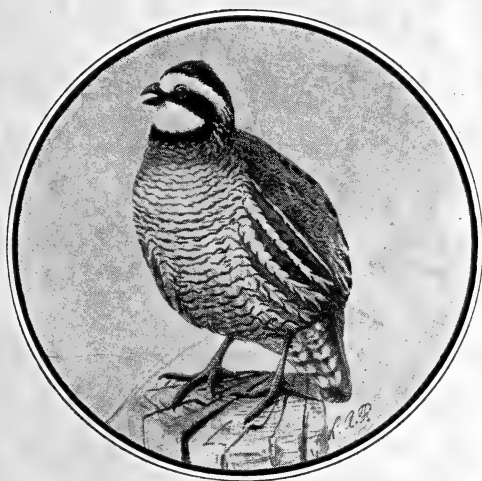
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THE AUDUBON ANNUAL BULLETIN



Number 23

1933

PUBLISHED BY
THE ILLINOIS AUDUBON SOCIETY

MAY 2 1957

NATURAL
HISTORY SURVEY



THE ILLINOIS AUDUBON SOCIETY

for the Protection of Wild Birds

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CONTENTS

Incidentally, of Birds.....	<i>Tappan Gregory</i>	5
Progg'in' and Prowlin' in Minnesota....	<i>Dr. Alfred Lewy and Edward R. Ford</i>	10
The Glen Ellyn Bird Sanctuary and Wild Flower Preserve.	<i>Benjamin T. Gault</i>	17
In a Metropolitan House-Yard.....	<i>Nellie J. Baroody</i>	20
Retrospect and Prospect.....	<i>C. W. G. Eifrig</i>	22
A Pair of Waxwings.....	<i>F. R. Dickinson</i>	25
The American Eider.....	<i>Alfred M. Bailey</i>	27
Horse-shoe Lake	<i>Carl Gower</i>	31
California Birds	<i>L. B. Fulton</i>	33
Martins	<i>Clayton H. Tanner</i>	36
At Trailside Museum.....	<i>Mary Cooper</i>	38

FIELD NOTES

Barrington Bird Club.....	<i>Ruth Work</i>	41
Prairie Horned Lark.....	<i>H. P. Higgins</i>	42
The Fall Season in Lake County.....	<i>James Mooney</i>	43
Birdhouse Survey in Winter.....	<i>E. R. Ford</i>	44
Berwyn Bird Notes.....	<i>Orpheus Moyer Schantz</i>	45
Field Notes	<i>Esther A. Craigmile</i>	47
Rockford	48
Carbondale	<i>Carl Gower</i>	49
Quincy Nature Diary for 1932.....	<i>T. E. Musselman</i>	50
Events of 1932 Bird Banding.....	<i>W. I. Lyon</i>	54
Port Byron	<i>J. J. Schafer</i>	56
Mount Carroll	<i>Blanche and Bertha Cramer</i>	57
Notes from Sullivan.....	<i>Loren Brumfield</i>	58
Notes from Ottawa.....	<i>Frank Bellrose, Jr.</i>	59
Random Fall and Winter Notes from Glen Ellyn..	<i>Benjamin T. Gault</i>	61

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Photograph by Tappan Gregory

Our national bird is a noble creature, even though he is willing to dine upon fish. And who will begrudge this fellow his meal since he posed for this—the finest flashlight photograph of a wild bird which we have seen.

THE AUDUBON BULLETIN

1933

Incidentally, of Birds

By TAPPAN GREGORY

Thursday, October 13, 1932. We are headed north once more, bound for the pine woods of Michigan's Upper Peninsula. The season is late but what matters that when tomorrow we should be safely ensconced in a snug cabin on the shore of Lake Superior? This is a country of magic memories, whose mystic enchantment loses nothing of its benign influence by the passage of time or the vagaries of weather. We have an objective—to photograph wild animals—and the fact that Bob Sturgis is new to this game, as well as to the country, sharpens the keenness of our anticipation.

Once the wheels of the old Northwestern Iron and Copper Express start to roll, I am possessed of the same exhilaration which has accompanied me on similar trips year after year during the past thirty-five years. Now, for the next few weeks, we may forget the turmoil of the city and enjoy the ever rejuvenating and soul-satisfying contact with the great north woods and its citizens, purposely mindful of the unalterable rule that the pleasures of anticipation frequently leap far ahead of the actual joys of realization.

We sit and chat in the smoking compartment, talking until late at night of how we should set our cameras. Perhaps this time we may induce the coveted bobcat to cross our trip wire, or outmaneuver the sly red fox. Maybe even a big gray timber wolf will so far relax as to leave us its image. We minimize the inevitable run of skunk, mouse, and bird pictures which sober thought must tell us will constitute a large percentage of our results. I plead guilty to seeking primarily photographs of mammals rather than birds. I can only suggest in extenuation that most of the mammals are crepuscular or nocturnal in habit and therefore perhaps more difficult to record with a camera than are the birds.

October 14. Most of the leaves are still on the trees. Their colors make bright spots on the hillsides. Today we must look over the ground and determine the most likely spots for our sets. There is a Loon floating around on the surface of Rush Lake, the hoarse croak of a Raven carries to us from the far shore and here, out in the middle of an old deserted beaver pond, high up on a dead tree, a few Pine Siskins sound like myriads. A Pileated Woodpecker calls with his strident note. He is at the tiptop of a tall tree, silhouetted against the sky. Apparently the Ruffed Grouse are reestablishing themselves. They flush before us at every turn.

October 18. The weather has been disappointing. We miss those clear, crisp days which we have come to regard as so characteristic of the woods in October. So far the cameras have brought in nothing of importance. (I make no reference to our observation of mammals. We deal here only with the birds.) The clouds are hanging low and we are enveloped all afternoon in a fine, misty rain. Geese are moving,—eight fly over us, headed northwest and later a flock of about forty honk their way overhead, taking an easterly course. In the swampy region about the mouth of Fisher Creek, two Jacksnipe jump and settle again. As we scout around, we hear a Loon on Pine Lake. His lonely cry is prematurely cut off and querulous. He has given up his black throat and shows white in the fall plumage. From the trail at dusk the hooting of a Barred Owl is heard.

October 22. A beautiful, clear day at last, with only a light breeze. At the foot of Huron Mountain, where the rocks slope abruptly into Mountain Lake, the lake trout are jumping all around us. Three small ones are taken, just enough to supply fresh bait for some of the cameras. We lunch on a rocky point at the far end of the lake and lie in the sun, sheltered from the breeze. A Ruffed Grouse is drumming in the distance. Not far off a Pileated Woodpecker calls. I answer by beating on a dead log and he appears on silent wing out of nowhere, to hang for a second on a tree forty feet away, glance hastily at us and drift off again as silently as he had come. High up, as a speck in the sky, an eagle soars lazily. What a contrast to the one seen a few days ago off the end of a sandstone point jutting into Lake Superior! On that occasion the wind roared, the lake pounded angrily at the foot of the cliffs. The eagle, startled at close range by our approach, leaped into the teeth of the gale, withstood its buffeting for a few seconds, then banked and turned abruptly to be swept out of sight in the murky atmosphere.

After lunch we push up into Cliff River to see what change has come over feeding conditions for the deer, in search of explanation for our failure to find them there last summer. As we work our way slowly up past a beaver dam, two Canada Jays alight on the branches of nearby trees at the river's bank, suggestive in action and appearance of chickadees much more than jays.

At 4:10 P. M. the boom of a distant flash is heard. It is a long walk to the camera trap. We are reasonably certain of the identity of the trap camera that has been sprung. In a little more than an hour we are at the spot and confirm our conjectures. A young Ruffed Grouse has walked into the wire. Fifteen minute are used up in resetting the camera. Now darkness is closing in. The breeze has died down entirely, leaving the surface of the lake very still. As we circle the shore, a Barred Owl hoots. Otherwise the quiet of the evening is undisturbed.

October 29. A blustering day. As a preliminary, the wind blew hard off the big lake all the preceding night. Now the temperature is

down to 37 degrees. The rain is falling steadily, turning into intermittent snow flurries. Better to be out in the weather, however, than to sit lazily before the fire all day. It is just the right kind of a day for a brisk walk to the end of the point, where we may have a splendid view of the surf. By turning south, we could circle around Rush Lake, checking up on two of our sets, and be back in time for lunch after a nice constitutional of ten miles. That is our plan. We watch the waves and listen to the wind and enjoy the rain driving into our faces. We strike an old lumber road and turn south towards Rush Lake. Here the seeds of revision are sown. Unexpectedly, we come upon a large doe freshly killed, not thoroughly stiffened: tongue and eyes in good condition, rump eaten out, but no other meat taken from the carcass. The only other visible marks are a slit in the top of one ear and flecks of blood on the neck just behind the ears. Leaves and twigs cover the head and rump. Ill-advisedly, we remove them to examine the carcass and do not replace them before resuming our walk. In spite of the weather, neither of us requires much persuasion to be convinced that a camera should be trained upon the kill.

At the shore of Rush Lake, a Bald Eagle jumps from a tree close at hand and crosses the lake. Eleven o'clock finds us at the nearest set. This is the camera which recorded the partridge. It has not been sprung. Five minutes later we are at what we call number four set. Here we have had no success and today we find that a branch falling on the trip wire has fired the flash. This is the camera we will take to the kill.

Further along the shore, a long, dead tree extends into the water. It has been that way for years. It is here that twice this month we watched three otters and because of that glimpse placed a piece of fish offered for their consideration. Now we find it gone. Who can say what took it?

We lug our apparatus back to the cabin, stop for a hasty lunch, and then move out into the wet again, retracing the morning's course. On the way, near a homesteader's clearing, our number one set is inspected. Nothing has touched the fish bait. Up from the grass in the clearing flushes a Sharp-tailed Grouse. It is my first sight of this bird in the Upper Peninsula. A big buck crosses our trail as we near the end of the point and our approach to the kill is greeted by the bitter complaints of a Raven. His feast has been interrupted and he hovers around only momentarily before flying off. The deer's eye is gone and the hair has been entirely cleaned off of a spot four inches or so in diameter just behind her shoulder. It is not easy to make this set. We must keep the camera and plate and powder dry and work fast in order that darkness will not overtake us. In the midst of operations our attention is attracted by the honking of a large flock of geese flying low, in picturesque formation, having the appearance of overlapping V's. They look very white and pink. Perhaps that is just the effect of the lighting.



Photograph by Tappan Gregory

A RUFFED GROUSE

frequent attention and now the trail to the end of the point has become familiar ground. A Bald Eagle sits at ease, looking over the lake, and a Sharp-tailed Grouse flies rapidly inland as we appear. Today there is some snow on the ground, but only occasional flakes in the air. Our otter set has been sprung, but we cannot tell the cause until the developer starts to work. It turns out to be a Bald Eagle. A real prize.

November 2. A Blue Jay sat upon one of our trip wires and fired the flash, resembling very little the hoped-for bobcat. And now our troubles begin at the otter set. At 1:55 P. M. we find it untouched.

On the return, we jump a Jacksnipe near a pool of casual water. It settles again immediately. Four deer, looking ghostly in the half light, cross the homesteader's clearing in single file. This has not been a good day for Ruffed Grouse. We have seen only one. On other days they have been quite numerous and have acted in every imaginable way. This includes the one that flushed ahead of us to fly at high speed right at our heads, clearing our hats by very little.

So our constitutional develops into a day of twenty rough miles.

November 1. For three or four days now there has been snow in the air, a leaden sky and geese on the wing. We have a camera set at the otter log, baited in forlorn hope, with a piece of fish. Of course, the camera at the kill needs

The bait seems a bit stale so we take the trouble to substitute fresh strips of lake trout, and at 2:25 leave everything in order. Five minutes later, off it goes. In fifteen minutes it is reset once more, and after an interval of ten minutes the flash is again heard. This time we have an inkling as to the guilty party. There is a Herring Gull floating around on the bay. A Loon also appears interested. Perhaps if we hang a handkerchief near the trip at the water's edge, the gull will be deterred or the Loon attracted.

November 3. More adventures with the gull. Twice we watch it light on the bay and swing close to investigate the bait, only to fly towards Lake Superior without touching it. Once, while we watch, a Loon comes fairly close. Apparently, the presence of the handkerchief is not of much importance. We might as well take it down.

November 7. The gull has visited our otter set once more. Now we have discovered a new sunning log of the otters. Camera and flash lamp stand in the water. It is a difficult set, especially in view of the rain. Passing through the homesteader's clearing today, we see again the Sharp-tailed Grouse. This time two of them.

November 8. The gulls still pursue us. Our new otter set has been tripped by one of them. We become so far imbued with the ambition to photograph the otters that we choose a small sand beach where they are evidently accustomed to sun themselves, and fight our way by boat for a mile or so in the teeth of a heavy blow to make still another set.

November 9. Steady rain all day, except for an hour or so at noon. Today we find mink tracks near the wire on the beach. The powder is wet and the dampness has set up electrolysis and caused corrosion of the wire trips. We finish our job after dark, listening to a Great Horned Owl as we work.

November 10. More rain and fewer pictures. There is an occasional kingfisher still to be seen. Almost every day we see or hear the big woodpecker, and the Barred Owl hoots not infrequently. Flocks of Snow Buntings and Pine Siskins are abundant.

November 11. I suppose we should not complain at this season of the year because the rain has turned to a driving blizzard. A doe stood thirty-five feet from our window and peered at us while we were at breakfast and a Raven flew by at high speed. One more gull has been added to our collection. This time a young one. Now, shortly after 10 P. M., we have just heard and seen the flash from our closest trap, set on a deer run. Tracks in the snow suggest that a buck has turned into the trail at this point.

November 12. Our last day in the woods. Still snowing and blowing from the northwest and now it is colder. As we move to pick up one of the sets, a Bald Eagle flying low towards the fish bait sees us, turns sharply and disappears in the distance. This is a short day for us and we see no grouse, but their tracks are scattered over the snow whichever way we turn.

Proggin' and Prowlin' in Minnesota

By DR. ALFRED LEWY and EDWARD R. FORD

Through the courtesy of Mr. Joseph Simons, of Chicago, who has a lodge on Squaw Lake, Itasca County, Minnesota, the authors were enabled to make observations from May 28 to June 10, 1932, in a section where bird life appears not to have been so intensively studied as in some other parts of the Gopher State.

Squaw Lake is practically all shallow water and is, in truth, a field of wild rice about six miles long and from a half mile to two miles in width. Its shores generally are margined by marshy stretches which, in places, give back into wide, willow-dotted bays of wet meadow. From these bays lead, further in, among ridges or promontories covered with mixed hardwood and evergreens, a number of sphagnum-carpeted tamarack bogs which, enclosing sections of the ridges, form a sort of "islands" comparable to the "hammocks" of the South. The lake itself contains a number of islands, some of which are but reedy reefs, others high and well wooded.

The scene presented upon our arrival was stirring enough from the viewpoint of one finding an especial pleasure in the presence of a large number and a wide variety of birds. Purple Martins and White-bellied Swallows filled the air about the lodge. Baltimore Orioles, Kingbirds, Downy Woodpeckers, and Warbling Vireos had taken up their territories close to the lodge. About 50 feet from the building, in the dead top of a large maple, a pair of Pileated Woodpeckers had their nest. Below the hilltop on which the lodge stood, and along the shore of the lake, Red-wings and Yellow-headed Blackbirds were active. On the lake, dotted with muskrat houses, Coots, Pied-billed Grebes, Mallards, and Great Blue Herons abounded. Left behind the day before, Duluth had seemed chill. It had suffered a snowfall on the preceding night and traces of the icy drifts marked the bleak countryside. Here at the lake warm airs supervened, the lush leaves of the young rice lay along the surface of the water, bird calls resounded.

The authors did a lot of what one writer describes as "proggin' an' prowlin'"—if we truly recall the phrase. This consists, we believe, in splashing around pond margins and creeks, push-poling flat-bottomed boats, and otherwise making a ruction in the haunts of turtles, garter snakes, Swamp Sparrows, muskrats, salamanders, Coots, and Grebes. The last named species, because of its interest and abundance, deserves a special word. Seven or eight nests containing from two to seven eggs were found. Sometimes the eggs were uncovered, sometimes they were fully hidden by the wet weed masses piled upon them. The parent, in the case of the covered eggs, probably had been warned by our approach. Nests open to

the eye probably had been reached by our boat during the absence of the parent. Once a pair was seen building, far from the shore fringe, where the new leaves of the wild rice, floating on the water, made its surface appear a uniform green. These birds dived for the dead vegetation and brought it in rather large pieces to a pile they had formed. On another nest, similarly located, the sitting bird could be seen without glasses at a distance of 500 yards. An apparently unmated male called continuously day and night for the space of two days. The call resembled two clucking notes followed by a wail which seemed like a human sound. As the call was uttered the bird thrust its head and neck forward and up.

These amphibious investigations resulted in the uncovering of a great many nests of the Coot. One of these contained seventeen eggs which may have represented a joint effort on the part of two hens.

A Coot whose nest was approached from the shore would leave it by swimming, while yet the intruder was some distance away, into open water, where it floated unconcernedly. As the threat became greater the bird would become agitated and utter a short grunting note, striking the water in a manner to produce a clapping sound. Whether the blow was made by using the wings or the feet could not be seen, but the sound seemed to be accompanied by a vibration of the body. If the wings were used they were not noticeably raised in the action.

Among the incidents, trifling enough perhaps, which somehow gave rise to pensive and reverent moods, were the frequent encounters with a mother Mallard and her downy brood. The old duck's efforts to get her offspring into open water, to keep the frightened ducklings together and, at the same time, to create a diversion by an agonized simulation of injury were touching and amusing.

On one occasion while crossing a rude culvert over a small stream a female Mallard was flushed almost under foot. She had brought her brood up the stream from the lake and had them in a pool where the embankment cut them off from concealment among reeds or marsh grasses. At first she began the tactics of her tradition but, almost immediately, seemed to sense the position of the young which could not move down stream to the lake, because of the human enemy on the culvert, nor yet could move upstream (in the direction in which she had been compelled to fly) without becoming more and more exposed to capture in the narrow channel. Without further clamor, but doubtless with a watchful eye from some near concealment, she left them to their own maneuvers. And these proved sufficient. In a mass the ten or eleven youngsters—one could have covered them with an ordinary felt hat—dodged about a willow bush, projecting from the bank of the stream, so as to defeat any ordinary attempt to secure them. The mass movement of these day-old ducklings without the least loss of cohesion was marvelous. Three nests of the Mallard, two containing nine eggs and one a single egg, were found. Curiously

the female was covering the single egg. The nests were all found on the islands.

To stand on the shore, as it was our privilege to do, and see a beautiful male Blue-winged Teal so close that the maculations of the breast and sides were distinct without the use of glasses, was a new experience. Many of these birds were quite approachable, but one whose nest with 13 eggs was found on June 7 was wild enough.

An eventful day followed that of our arrival. Mr. Clarence Jung, associated with the Milwaukee Public Museum, had reached the lodge a day or two before. Without particular plan we started in the general direction of the Chippewa National Forest. Our first stop at a general store at the crossing of two highways resulted in information about some strange birds which had regularly been seen in the vicinity. The young man who described them had a fair knowledge of the usual forms of the region, but reported that this was new to him. We decided from his account that they were Evening Grosbeaks. We had not driven a quarter mile before seeing a group of six of these birds in some aspens near the road. To one who has never seen the brilliant nuptial plumage of the males it is useless to describe the impression produced.

Having stopped to admire the scene presented by a small lake in a typical northern setting, we noticed a Loon floating off a small marshy point. Deciding that the nest was there, we trained our glasses on it and soon saw another Loon slide from the point into the water. We made a long detour to avoid the area of marsh and, finally, Mr. Jung was able to reach the nest which held (May 30) but one egg. We had seen Loons' nests before but to find and reach one is difficult enough, usually, to give the discovery the color of an event.

Returning to the road where we had left Mr. Jung's car, one of the party heard a song which he said reminded him of the "teacher" song of the Ovenbird. The senior author, who for many years has spent much time in the study of warbler songs, recognized it as something new, but did not know it for the Connecticut Warbler's song which it proved to be. It was quite unlike the "free-chapple, free-chapple, free-chapple WHOIT" described by Seton and which we had heard from this species in migration far south of its breeding haunts. The "teacher" song, heard close at hand, becomes "chip-a-ticket, chip-a-ticket, chip-a-ticket," with a slight but definite pause between the phrases and the accent on the third note of each.

There followed, upon this identification of a singing male Connecticut Warbler amid surroundings which agreed with those described as its breeding environment, an experience which gave our little company a thrill as great as it could have been if they had found what they thought they had found, to wit: the nest and eggs of the Connecticut Warbler. We sought the Connecticut's nest and found a Nashville's. But we didn't find out about that until later. No other warblers were heard in the neighbor-



Photograph by A. M. Bailey

PIED-BILLED GREBE UNCOVERING HER EGGS

hood except a Redstart and a Blackburnian, neither on this day nor on the following when we returned to the nest. No Nashville was heard at any time.

On the second day, while we were photographing the nest, a small bird was descried about 25 feet from the nest. There on a fallen log it was immediately joined by another. A mating was attempted, but the first bird flew, leaving the other, unmistakably a Connecticut Warbler to be plainly seen. However, the nest and eggs, when delivered to the University of Minnesota Museum by Mr. Jung, were found by comparison not to belong to the Connecticut but to agree exactly with those of the Nashville. Further comparisons and references made by the authors upon their return to Chicago convince them that the identification made by the Museum is correct. Although the relation of this story involves an admission of error, we would not leave it out. If those who may read it share in the least the interest and entertainment we had in the event itself we shall be content.

Because of this digression it is not to be thought that the adventures of the day were at an end. We had forgotten lunch and now made a light repast. One small can of beans (discovered by Mr. Jung in the rumble seat of his car) was divided, one might say bean by bean, among three males with outdoor appetites. Then on the way back to the lodge a Fish Hawk was seen, flying with a goodly fish in his talons in the direction of some large nests which had been marked by the senior author in the fall of a previous year. Thereupon we drove several miles and walked a few more to discover that one of the large nests was in fact the Osprey's aerie. This bird, so common and familiar along the Atlantic seaboard, is not at all common in the interior and when found nesting there the site is usually in some remote district.

When not upon some particular excursion, such as seeking to locate the nest of the Evening Grosbeak (we learned later that one was seen carrying twigs near the general store and we ourselves saw the birds in that neighborhood as late as June 10), or seeking the nest of a Yellow-bellied Sapsucker (whose favorite "drum" was a strip of galvanized iron on top of a windmill near the lodge), we could loaf about headquarters and watch the Pileated Woodpeckers. As already set forth, the nest was about 50 feet from our domicile.

The birds were watched daily during the period of our stay. In the late afternoon one, ascertained to be the female, would look out of the hole and call. Soon the male would come, the other would emerge and the first would take her place. As feeding was not seen at any time it was assumed that the young did not hatch until after our departure, June 10. Once the male was seen at close quarters after a shower. He was drinking from a pool in a wood road. Presently he flew to a dead stump and with a vigorous side to side motion of the bill, attacked the mound of rotted wood at its base. After each such onslaught he was seen to feed in a deliberate, dainty manner. When he had flown an examination of the heap showed it to be swarming with black ants. There were only one or two eggs to be seen. From the feeding action noted and the presence after the "gorge" of so many ants, it was deduced that not the insects but their eggs had made up the woodpecker's dinner.

Much time was devoted to the warblers of which fifteen or sixteen make their summer home in this region. In the evergreens the commonest was the Blackburnian. On the brushy areas of the burned-over land it was the Chestnut-sided. At a point on the wood road, leading into the lodge, there was a group of spruces and balsams where a male Magnolia took his position and sang regularly for several days. An exhaustive but unsuccessful search for sign of a female or of a nest was conducted on three occasions. Finally the male abandoned the "territory"—that is to say, he was neither seen nor heard there afterward.

While engaged in watching this bird we noted a female Black-and-White Warbler and saw it disappear behind a small knoll. After waiting several minutes we moved carefully so as to be able to view the spot, and saw the bird squatting and "frozen" where the ground was quite bare of concealing vegetation. We do not recall another instance of a warbler (except a bird on the nest) attempting to avoid observation by immobility rather than flight.

On another occasion, coming out of a tamarack swamp, where we had spent two or three hours, and, where, unexpectedly, we had found a Hermit Thrush's nest in the deepest part of it, we came on what we believed to be a partly built nest in a stand of balsams on one of the "hammocks" where a male was singing. The tamaracks near at hand were decorated with *Usnea*, but not in bunches or masses large enough to conceal and support the typical nest of the Parula. Hence, moss taken from the tamaracks while wet had been placed on and near the ends of interlaced, flat balsam boughs, to which, drying, it adhered. In this mass a nest hollow or pouch had begun to take form. Unfortunately, after the nest had been found, work on it was abandoned.

But perhaps our most intense effort in the study of the warblers had again to do with the Connecticut. After our experience with this species in the National Forest and after Mr. Jung's departure, we located a tamarack and sphagnum swamp where we could hear three birds singing at one time in different parts of this area. They sang the "chip-a-ticket" song with which we had been made acquainted. However, two other birds sang a quite different song, *ché-cha-cha*, *ché-cha-cha*, *ché-cha-cha*, with a pause between the quickly uttered phrases and the accent on the first note of each. This was a loud ringing song which was sometimes rendered *chaché-cha*, *ché-cha*, *ché-cha-cha*, or possibly, *cha-cheécher*, *cheécher*, *cheécher-cha*. One of the birds with the different song was under observation on a number of days for a total of about eight hours. He was seen once at a distance of 12 feet on a low branch along which he walked. He was not typically a Connecticut Warbler. His feet were a very bright flesh color; his underparts below the breast were canary rather than straw yellow, and the eye-ring, although whitish, was not conspicuously so. When singing, the mandibles were opened very wide. His choice of singing perch was the exposed top of a dead tamarack, whereas other Connecticut Warblers sang from concealment among the branches. It was planned to collect this bird before leaving the region, but circumstances prevented.

It was impossible to go afield in this unspoiled region without some stirring, if small, adventure. For example, we had been attracted by the song of the Short-billed Marsh Wren to a wet, willow-dotted meadow beside the lake. Two pairs were established there and one of the nests was found. It was of the substantial character supplied by old grasses rather than of the character of the green grass structure of the mock nests

built by this species. No eggs had yet been laid. While inspecting this cover we were startled by a small sparrow which flew to the top of a reed and was for an instant outlined against a background of sky and water. It was the first living Nelson's Sparrow we had ever seen. Altogether three were noted. One of a pair was seen to pursue the other, and as the date was June 9th it was concluded that probably two pairs were breeding in that grassy bay.

Again there was the usual meeting with a Ruffed Grouse which no excursion into the North should lack. One brood of downy young was encountered, June 8, and on the 9th a nest with 7 eggs was found. When visited on the 10th the number remained the same. Quite likely this was a second attempt at nesting. A cock, evidently the mate of the bird on this nest, used a log not more than 30 feet away from her. On four occasions he kept his place on the log until the observers were quite near, then strutted away, slowly lowering tail and ruffs. When the nest was found, at the edge of the tamarack swamp, it was recalled that the male had always vanished into the cover at a point near his brooding hen.

Even if one remained quietly within, beside the log fire, entertainment on the part of the local wild life did not fail. On a rainy morning one of the authors left the lodge after the other occupants had gone. He noticed three Golden-eyes circling about the building sounding a kind of anxious complaint. He watched them for some minutes, when they flew away. Returning about noon, the others not having done so, it was not long before he heard a fluttering sound, which was repeated at intervals of 15 or 20 minutes. Somehow he associated the noise with the Golden-eyes seen in the morning, and tried to look up the chimney from which the sound seemed to come. Nothing could be seen and it was not until the others returned and a small fire lighted, the drafts being opened wide, that the sudden appearance from the fireplace of a female Golden-eye solved the mystery. It was uninjured and being released flew straight across the lake. Although others of its kind had young at the season, the exploration of the chimney may have related to its possible availability as a nesting site.

We had supposed this experience to be unique but we have since learned that Dr. John C. Phillips, in one of his works on our waterfowl, describes its counterpart, the bird being of the same species.

The authors rely upon the incidents in connection with the observation and recording of more than a hundred species of birds, and with the finding of nests or young of thirty-five species to supply memories of the proper sort sufficient to last out what promises to be a long, cold winter.

The Glen Ellyn Bird Sanctuary and Wild-Flower Preserve

By BENJAMIN T. GAULT

Interested friends have asked for further information about our little sanctuary—what we have done and what we have planned and hope to do. As for the last remark, if taken in the broadest sense, it possibly might take us too far into the uncertainties of the future; therefore, it cannot be considered seriously at just this time. There are those, however, among us who are optimistic enough to hope that at some future day the place may be somewhat enlarged; at present it is a question of cutting our garment according to the cloth, and it can be truthfully stated that it is indeed surprising how much can be done on a comparatively small piece of land.

Glen Ellyn, like most places, has felt the financial upheaval, though hardly to the extent of other communities that easily could be named.

The above title, however, does fall short of conveying all our aims and purposes, for the trees and shrubs of the state in addition to its herbageous flora are to receive marked attention. Of the trees, we reasonably hope that all may live and thrive with us. The situation is admirably adapted for that purpose, more so in fact than it would be were it a level and at times, wind-swept woodland. There are sheltered places, soil variations, changing conditions of ground moisture, and light and shady spots. Therefore, with such acquirements we hope to accomplish much.

The arborescent flora of Illinois is greatly varied in character, more so, as has been remarked, than any other member of the Union, though comparatively few of our people are fully aware of that fact. It cannot be called a timbered state.

At this writing we have growing there sixty species of our native trees.

What we hope to do in the case of the trees and some of the shrubs, we likewise shall undertake to do with many of the beautiful and interesting woodland plants, and not a few of the prairie forms as well.

For years this little ravine has been a favored resting spot for transient bird-migrants, journeying back and forth from their summer and winter homes in the north and south, remaining for brief or more lengthened periods.

It has at times numbered among its feathered inhabitants several interesting summer resident birds; for example, that prince of songsters, the Wood Thrush, with which our village seems peculiarly well supplied. A brood of four young was raised in the sanctuary the past season. Of

almost equal importance, and by some, thought superior, is the Rose-breasted Grosbeak, another fine songster and one of Glen Ellyn's choicest. There are other interesting entertainers also and, although some of them are not known to have nested there recently, they are at least regular visitors; for example, the Cardinal and Brown Thrasher, both of which nest each season close by. With the erection of a permanent cat-proof fence, and the growing of more shrubbery, we hope to keep them with us a good portion of the year, especially during nesting time. At present too many prowling cats are about. The Robin, of course, is a regular tenant. The plaintive and restful notes of the Wood Pewee are heard there during the warmer months, so, too, those of the Mourning Dove.

The little Downy and his larger relative, the Hairy Woodpecker are in and out of there throughout the year. That little trumpeter, the White-breasted Nuthatch, finds much to interest him in that retreat.

The Flicker spends much time about the place, if he does not actually nest. But provisions for that will soon be made.

The past year of 1932 has been one of progress, for, aside from the considerable planting done of trees, shrubs, and wild-flowers, a "rockery" has been built and supplied with running water, which can be controlled at will, each ledge being independently supplied.

This is operated from a catch-basin in the park-way, or tree-bank outside. Then there is the surface water, which flows through the brook very forcefully at times, almost torrential in character. The crevices between the rocks forming the ledges of the "rockery" have been planted with ferns, and a few other plants suitable, found growing and gathered in our state. Even the weathered lime-rock used in its construction is representative and gathered in the state. Strictly speaking, the entire project is to be thoroughly Illinoisan.

This last addition needs several details yet before being worked out, and the brook must necessarily receive further attention.

The primary object in establishing this little enterprise has been educational from the start. That alone has been the one idea.

It is in no sense a recreational park, for that would defeat its purpose. We want it to appeal to the older people as well as the young, and to all those who have a sincere regard for the great outdoor world—a quiet, restful place into which one may wander and watch nature's workings at close range, subject, of course, to those limitations such a small area must necessarily afford.



Photograph by Benjamin T. Gault

IN THE SANCTUARY

A small brook meanders through this bit of woodland in the Benjamin Gault Bird Sanctuary, making an ideal place for our native birds to seek refuge. As this photograph was made, a richly colored male cardinal flew up from the brook where it had been quenching its thirst from the partially melted sheath of ice.

In a Metropolitan House-Yard

By NELLIE J. BAROODY

Early in November a disabled Catbird drifted into the yard. He could fly from here to there in a gliding way without too much difficulty, but a sagging wing and a lame leg explained pathetically why he had lingered behind the autumn migration. I laid half an apple where he could find it. Bre'r Rabbit came along and ate it up. I put out the other half of the apple and a few raisins in a cocoanut shell and Mr. Squirrel took them all away. It was only on one or two occasions that I had the satisfaction of seeing the Catbird eat or that I found bill pecks in the apple, which was always kept within reach. The bird became more and more emaciated as the cold increased and he was surely a sorry sight when on the afternoon of December the seventh fortune made a right-about turn in his direction and brought him to the feeding tray at the dining room window. Four Cardinals had been feeding there for weeks and the thing was full of sunflower seeds, which meant nothing to a starving Catbird. However, the place looked good enough to hold out promise and he did not leave the surrounding privet shrubs while I laid out an apple, a spoonful of peanut butter, raisins, and a few crushed nut meats. He did not eat ravenously as might have been expected, but took good hearty tastes of each. When night came he tucked his head under his wing and stayed where he was, and the thermometer dropped steadily so that it was not much above zero in the morning. The Cardinals came for breakfast and found the precious table had changed ownership, and no redbird was allowed to set foot on it! They fell back abashed and after the first few hours, made no effort to repossess it, contenting themselves with seeds that were thrown under the window. A telephone talk with Mr. Karl Plath brought valuable advice and an emergency supply of food for an insectivorous bird's diet. Meal worms, dried ants' eggs, and a mixture containing cod liver oil were spread on the table and were gratefully received. The cold increased for several days until the thermometer finally touched fifteen degrees below zero. A few spruce boughs were tied among the privet branches to serve as a wind break on the west and, as the window faces south, the bird survived. The Sparrows came flocking after the peanut butter and the Catbird seemed strangely tolerant of them as compared to his behavior towards the Cardinals. A hissing noise seemed to be his only effort to ward off mob violence during those coldest days. There was some uncanny effect in it though, for after a week or ten days those Sparrows literally melted off the tray and left the Catbird in full and sole possession, the autocrat of the window sill. After the first night the bird left the place to sleep. Soon after four o'clock

he would take off to some unknown roosting place at a distance, because we could watch his flight through the yards on the opposite side of the street. For more than a week we saw him go late every afternoon but each morning he was back about seven-thirty. All day long he sat in his snug little nook, which I thickened, bough by bough, almost daily. Suddenly one afternoon he changed the course of his flight and went to bed in a very thick growth of syringa in a north angle of our own house. After that day the whole family went on the job of watching him off to bed every night, some of us seeing the take off on the south side of the house and others noting the successful landing on the north. This daily migration became of immense importance to the household. Christmas approached; so, naturally, the name of "Tiny Tim" was given to the little fellow, who deserved it because of his infirmity only. As bit by bit the spruce cover thickened he decided to burrow into it for night protection, so now all his time is spent on the south side of the house. He has become fat and finds flying much more difficult. He never leaves the yard, which is protected by a thick untrimmed hedge with a fence outside of that, but he seems perfectly contented with little trips to the bath and meanderings among the shrubbery. From wind and rain he is sheltered by overhanging eaves and spruce boughs, food is always here, and one of nature's first laws, the survival of the fittest, has been overthrown.

During the spring and autumn migrations hundreds of tired little travelers stop with us. Seventy-four species have been recorded in a four year period. The White-throated Sparrows tarried five weeks on the way north and six weeks when they went south. Several Chewinks always come in the spring for about a month, and last autumn one sojourned for all the last week of October, the only fall appearance that I have noted. A Winter Wren was here through the month of April and, of course, the Bohemian Waxwings cleaned up the high bush cranberry during March. Unexpected visitants come when conditions are favorable. The Woodcock is one of these. When dry weather urges him from his natural habitat we find him probing our cool, sprinkled shrubbery. The Whip-poor-will was here last year when the trilliums were whitest. During the summer the yard was sanctuary for the nests of the Thrasher, the Catbird, a Red-eyed Vireo, and several Robins. Besides the Catbird, I am now feeding four Cardinals, several Jays, two or more Downy Woodpeckers, not to mention a horde of Sparrows. Eight or ten Purple Finches were here a month ago and an occasional Junco drifts in from the surrounding prairies.

This yard is a hundred foot lot, not in any degree measuring up to the proportions of an estate. It is nine miles from the heart of a great city. To birds it means water, food, and protection. However small and unimportant geographically, I am beginning to hope that in bird language and understanding it is known as "Wings' Rest."

Berwyn, Ill.

Retrospect and Prospect

By C. W. G. EFRIG

Despite difficulties and obstacles, the cause of bird protection and conservation in general is marching on. The new gospel of kindness toward things in nature, promulgated by teachers in high and low schools, is bearing fruit. A proof, if one were needed, is, among others, the Bowen Bird Boosters. This not overly euphonious nor overly academic appellation hides under itself a flourishing club of students in Bowen High School, in the steel-mill district of South Chicago, a locality that would seem least suitable for anything like this, both from the standpoint of location and character of population. It has been thriving for eighteen years, devoting itself to the study and protection of birds and other children of nature. How willing and enthusiastic its members are can be seen yearly at the outing of the Illinois Audubon Society, when 100 to 200 of its members come all the way from South Chicago to Lyons, on the north-western periphery of the big metropolis, all eager to see and be shown birds. Of course, there is a reason for this unique club, this flower in a desert—the dynamic and masterful personality of their teacher in nature study, Miss Loomis, a teacher that would delight the heart of Comenius, Pestalozzi, Mann, or any other ancient or modern pedagog. Her discipline is easily supreme among these none too meek-looking sons of Sicilian, Slovak, Croatian parents and of several other nationalities. Miss Loomis has been able to instill her love of the finer things in life into them, also her patience and willingness to learn, her enthusiasm for God's great outdoors.

Why do we mention this here? To set up a train of thoughts within us. Perhaps more of us who are teachers in elementary or secondary schools can perform similar service. Here is an idea. While recently driving through parts of central Illinois, the writer noticed that even in this highly developed corn-belt there were numerous corners on the farms that were lying fallow, unused, growing up to weeds and shrubs. Perhaps the soil is exceptionally poor or there is a brook or creek cutting through. Would it not be a fine thing if teachers and pupils in rural schools would organize efforts to secure the permission of the owners of such lands to post them, i.e., put up signs to forbid hunting or other disturbance in them? Each such otherwise worthless corner would become a little bird sanctuary, where they could breed and feed undisturbed by man at least, a small wild life refuge, where a few of the last wild prairie flowers and birds may make a last stand and perhaps again somewhat increase in number. These same nature clubs could then also plant up such corners and fields, sow wild sunflower and hemp seed. In central Illinois most Osage orange hedges are being cut down, one of the last covers

for Bob-whites. Such impromptu bird preserves would also solve that difficulty, and provide needed cover for these little round cherubs. Just think what could be done in every county and township of the state, with no increase in taxes, even in this era of steam-shovel and steam-roller civilization!

What about the past duck season? Illinois has again lived up to its reputation of duck-slaughtering state. The Illinois River was again the *Via dolorosa* of migrating water fowl. After three poor seasons the ducks showed up again in goodly numbers, and therefore were again mercilessly shot down wholesale. We were told of a party of six hunters who in two days shot 238 ducks, 58 above the limit. Think how many of the small bands of traveling wild ducks were wiped out by this one group alone. A duck hunter told us how he and a companion on the preceding Saturday had shot 25 ducks in two hours. Although a passionate shooter even he felt a little guilty, and, upon reflection, added that according to his observation baiting of ducks and geese with food, the use of live decoys, and of pump and machine guns should be strictly forbidden. He had been humane enough when entering the shooting preserve, where you could shoot the limit for five dollars, to shoo away about 3,000 ducks that were in the feeding pen. Oh, the shame of this commercializing of the lives of these innocents! What is there that is not commercialized in this, our superior (!) civilization?

Perhaps we are at the dawn of a better day. The new governor, Judge Horner, is a strong conservationist in sentiment. He is for a non-partisan commission of conservation. It remains to be seen whether he can carry out his good intentions. For, we must not forget, many of the hunters and shooting-place owners have political influence in their respective districts. Greed and other forms of selfishness are barriers difficult to break down, even for a governor with the best of intentions. Again we would urge all members of the Illinois Audubon Society to bring pressure on their representatives in Springfield to vote for any law introduced to enlarge the scope of bird and nature conservation.

A sinister threat to our native birds is assuming more and more ominous proportions, the starling. Perhaps we could still grapple with this menace before it is too late if this bird were placed on the list of game birds, because the attention of shooters would then be directed to it.

Again we submit a list of desiderata in bird protection, devoutly to be wished—and worked for.

Removing the Mourning Dove from the game bird list.

Declaring a closed season on the Prairie Chicken and the Bob-white.

Forbidding the baiting of wild ducks with food.

Forbidding the use of live decoys.

Forbidding the use of pump and modified machine guns.

Granting more protection to owls and to beneficial hawks.

Devising ways and means to reduce the number of hunting licenses.



Photograph by F. R. Dickinson

THE "VELVET BIRD"

"Cedar Bird" and "Cherry Bird" are other popular names for the Waxwing. This individual showed no timidity at any time, and the indignation apparent in the photograph quickly wore off as she became accustomed to the camera.

A Pair of Waxwings

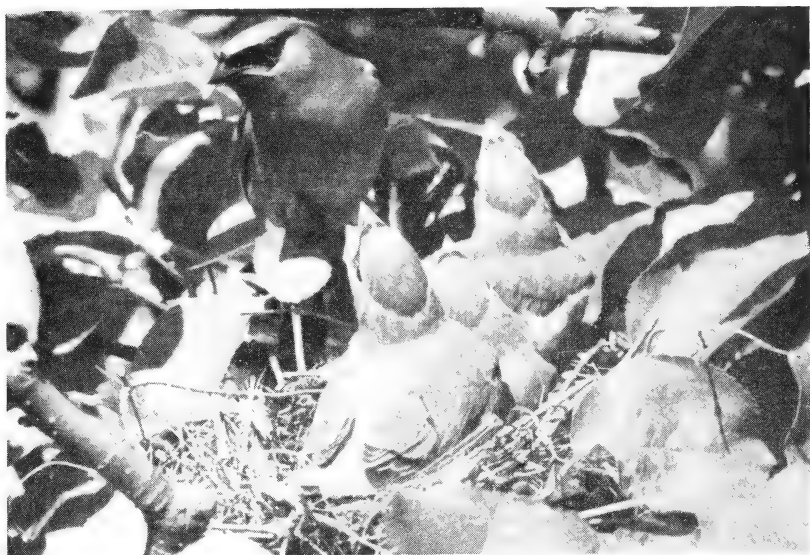
By F. R. DICKINSON

Most of us who like to watch and study living birds have, I think, a few favorites in which for reasons perhaps unknown and undiscoverable, we take more than ordinary interest. Sometimes this apparently blind fancy may be traced back to some field experience, more than ordinarily vivid and pleasing, which has made so lasting an impression that ever afterward the sight of that particular bird arouses in us, consciously or unconsciously, a wish to add further to our knowledge of its ways. In other cases it may be that some quality already within us, such as appreciation of color, form, speed, daring, or dexterity, responds more readily to the sight of those birds whose own characteristics suggest the traits which we admire. However this may be, I have always counted the Cedar Waxwing as one of my favorites, partly, I think, because of the beauty of its satiny plumage and clear marking, but even more for its quiet and self-contained behavior whether in flocks or pairs. If it is permissible to endow birds with human attributes or describe their habits in terms of human conduct, one must admit that a dozen waxwings, sunning themselves peaceably in an orchard, present a picture of poise, friendliness, and good manners not always to be observed among their feathered relatives.

Last summer, in Charlevoix County, Michigan, I had a chance to study the habits of a pair of these "velvet birds," as the natives called them, at close range. Their nest was near the top of a low apple tree, within ten feet of an inhabited cottage. On June 27 incubation of the four eggs had begun, and after allowing the parents to grow accustomed to me for a few days, I set up a blind on a platform so placed as to bring a motion picture camera level with the nest and about seven feet from it. During this process the incubating bird remained quiet, showing nervousness only by extending her neck as high as possible, with the head turned to one side, and "freezing" in that position until I entered the blind.

For about ten days I kept the nest under frequent observation and never saw both birds near it at the same time. The one I took to be the male spent most of his time in or about a nearby garden and orchard. The other stayed on the job except for short intervals of feeding. Then one morning I saw both birds sitting on the edge of the nest, motionless, one of them bending over as if inspecting the contents. I can't actually swear to an expression of parental pride on its face, but the attitude was so suggestive of it that after a few moments I climbed up and found, as I had suspected, that one of the eggs had hatched.

From then on, as nearly as I could observe, both birds took part in feeding the young and one adult often brought food to the other. About a week after the hatch was complete, one of the parents came to the nest



Photograph by F. R. Dickinson

THE FAMILY GROUP

carrying in its bill a red fruit or berry, about the size of a large currant. This it carefully squeezed in turn over the yawning mouths of two fledglings, allowing a share of the juice to each. Presently it deposited the crushed berry in the throat of one youngster, left it there for a moment as if to drain, and then transferred it to the other, which proceeded to swallow it. There was a deliberation and apparent plan in the proceeding that seems rather lacking in the catch-as-catch-can feeding of many other species; and there was no doubt in my mind that the squeezing out of the juice was purposeful rather than accidental.

The Cedar Waxwing has a wide breeding range, including much of the southern part of Canada and the northern and central parts of the United States. Its winter range covers most of the United States as well as Cuba, Mexico, and Panama. It is easily identified, as no other bird except the Bohemian Waxwing resembles it, and the latter may be distinguished by its white or yellow wing markings. In spite of a fondness for cherries, its activity in the destruction of canker worms and insects of many kinds makes it a valuable species entitled to all possible protection.

For those who, like the writer, have only a limited knowledge of bird life, photography offers a profitable opportunity for observation of birds. While waiting at close range for a desirable pose, you will see many actions and habits worth noting, and the attempt to get a characteristic picture tends in itself to fix in the memory what the eye has seen.

The American Eider

By ALFRED M. BAILEY

The rugged shores of the St. Lawrence and the Newfoundland Labrador are the homes of many water birds; quaint sea fowl nest upon the precipitous ledges or burrow among crannies of moss covered boulders, while the dense thickets of spruce and firs, gnarled and twisted by the winter gales, offer havens for other forms. Audubon, the great naturalist, worked along the Canadian Labrador one hundred years ago and he found a wealth of bird life to reproduce on canvas, and among the paintings which he brought back were those of the American Eider.

In the years which have followed, the Eider were subjected to heavy shooting by hunters, and to raids upon their nesting grounds by fishermen, until their numbers were woefully few. Fortunately, the Canadian government established sanctuaries that the birds might breed unmolested, and with the aid of closed seasons, the Eiders were saved from extermination.

During the past summer it was my privilege to work along the Canadian Labrador, making a photographic record of the interesting bird life for the film library of the Chicago Academy of Sciences. Prior to the work on the "north shore" with Dr. Harrison F. Lewis, Chief Federal Migratory Bird Officer of Quebec and Ontario, however, I had been invited by Dr. D. A. Déry, of the Provancher Society of Natural History, to visit their sanctuaries on the south shore of the St. Lawrence, near Trois Pistoles, Quebec.

I joined Dr. Déry in the interesting little French settlement of Trois Pistoles late in June; the town is typical of the villages of the region, with neat dwelling places extending along the main highways, with carefully kept fields extending beyond the houses. The precipitous shores of the St. Lawrence rise abruptly and at low tide, great water worn boulders are left stranded on the flats.

There were many land birds to be seen when we walked through the fields or among the fragrant conifers but at that season of the year they were nesting and were reluctant to make their presence known. Upon the river, however, we could see many water fowl—gulls, terns, herons, and the eider which I hoped to photograph.

The Provancher Society is an organization which has accomplished real results in conservation. Near Trois Pistoles are three islands, a large wooded one, L'Ile Aux Basques, used by the Basques in the 1600's as a place to try out whale oil (the remains of their furnaces are evident), and two small, rocky islets a few miles down river where the Herring Gulls and Eider nest. Water birds have used these islands as breeding places "as long as man remembers," but unfortunately, they have been



Photograph by A. M. Bailey

THE AMERICAN EIDER ON HER NEST

subjected to raids for about the same length of time. The Provancher Society secured title to these islands, hired a warden to protect them, and since then the birds have been given the opportunity of rearing their young in safety.

The two rocky islets, known as the Razades, are the main breeding places of the American Eider, with a wonderful concentration of breeding birds. Several naturalists counted six hundred and seventy-nine occupied nests in June, 1931, and an equal number of Herring Gulls.

My visit to this region was a hurried one, but several trips were made to the Razades with Dr. Déry, that I might make records of the Eider on motion film. It was a fine clear day that we made our first excursion, with a westward wind kicking a slight swell on the broad St. Lawrence. An Osprey hovered over our boat for a few moments and then headed for L'Ile Aux Basques, where, doubtlessly, it was nesting, while Herring Gulls circled about us, as though awaiting for food. We saw many Eider upon the river, including a few of the handsome males, although the majority had long since departed—to wherever male Eiders go. They seem to have the right idea of life; they develop their romances to the



Photograph by A. M. Bailey

IN THE DOWN

housekeeping stage, and then leave for points unknown. We saw one old hen far out from land, with her half dozen downy youngsters.

The two islands were about alike, low-lying rocks, with their tops clothed with dense stands of grass through which the nesting Eiders have made a myriad of intricate pathways. We found that the ducks were not wary, many of the nesting birds remaining on their eggs until we were within a few feet. The nesting season was well along, but we found nests with fresh eggs; the birds which were frightened from their nests congregated upon nearby sandspits, while the hundreds of Herring Gulls circled overhead voicing their displeasure at our invasion in no uncertain terms.

The members of the Provancher Society had kindly erected blinds at my request, so the nesting Eiders were accustomed to them; the hiding places were situated in favorable sites with half a dozen nests nearby, so it was a simple matter to set up our photographic equipment, and it was not long, after we had concealed ourselves, before birds came swooping in, alighting with loud back strokes of their wings. They apparently sensed a change in the blinds, however, for they were shy, and took flight when I started cranking. However, after a while one accepted the situation,

and after eyeing the blind and clucking her displeasure, she waddled onto her nest, removed the down from the eggs, and settled upon them, while I recorded her actions on motion film.

Other birds ventured on their nests in the clumps of vegetation, and I could see their brown eyes peering from the tangled grass as they sat motionless. One old one was a little nervous and was easily startled from her nest; nearby was an unclaimed nest with four eggs, and when the whirring of the film made my photographic subject uneasy, she would go to the other nest to incubate. She would not remain for any length of time, however, but would soon waddle to her own.

The Provancher Society has set an example in practical conservation which might well be followed by similar organizations throughout the world; there are favorable sites in every community which might well be used as sanctuaries for native birds.



Photograph by A. M. Bailey

PROTECTIVELY COLORED

Horse-shoe Lake

By CARL GOWER

As a bird lover's paradise Horseshoe Lake, located about eight miles west of Mounds, Illinois, cannot be excelled in Southern Illinois. I have two very excellent reasons for making such a bold statement. In the first place I have visited most of the areas in which birds might be found in numbers, and have found none equal to Horseshoe Lake in diversity or abundance of bird life. In the second place Horseshoe Lake has a uniqueness about it which one is unable to match elsewhere in Illinois. If Horseshoe Lake were located three hundred miles south of its present location, it would be just another small lake, but being where it is, it brings a strictly southern atmosphere into our northern climate.

The biggest factor in this uniqueness is the large growth of Bald Cypress bordering the lake shore, and even standing in the lake. This is to my knowledge the northernmost large growth of cypress in Illinois. True there are isolated trees much further north, but no growth to compare with that of Horseshoe. Some of the trees along the shore are 75 to 100 feet high. Another tree rather unusual in this northern climate is the Southern Buckeye, which is rather common along the lake shore. For those who prefer the woodland there is equal delight, for back from the lake extends a large forest—chiefly of Beech—which would please even the most particular naturalist. Then, too, last but not least, is the large cleared area used for feeding geese and ducks, which is about the only refuge for these birds in the southern part of the state.

Within the last year a concrete dam has been built to hold the water, and prevent the entire drying up of the lake as it did in the summer of 1931 and 1932. Due to the large evaporation surface, loose sandy soil of the bed, and comparative shallowness of the lake, this is certainly one of the wisest expenditures of funds for without the lake half the animal and bird life would be lost. Recently a picnic grounds has been cleared in the Beech forest about 100 yards from the lake, and a temporary road built through this woods. It is my sincere hope that this road and grounds are not too frequently used by people who care for nothing more than a holiday. When such a state exists, Horseshoe Lake will be just another State Park.

My trips to Horseshoe Lake are every one a succession of pleasant surprises, for I have never failed to see something entirely new. The only thing which mars my enjoyment of Horseshoe Lake is that I am not able to spend more time there. I shall give my notes for two of these trips during the last year, and for entirely different seasons.



HORSE-SHOE LAKE

Photograph by Chicago Transparency Co.

Horseshoe Lake, January 9, 1932. Geese 2,000; ducks 25 (identification impossible), Flicker 1, Carolina Wren 3, Red-shouldered Hawk 1, Tufted Titmouse 5, Junco 200, Fox Sparrow 2, Chickadee 150, Red-bellied Woodpecker 2, Pileated Woodpecker 3.

Horseshoe Lake, August 13, 1932. Great Blue Heron 10, American Egret 25, Little Blue Heron 5, Little Green Heron 20, Black Vulture 4, Red-tailed Hawk 3, Red-shouldered Hawk 2, Sparrow Hawk 4, Quail 5, Killdeer 1, Sandpiper 1, Turtle Dove 500, Yellow-billed Cuckoo 1, Hummingbird 4, Belted Kingfisher 10, Red-bellied Woodpecker 10, Red-headed Woodpecker 15, Downy 1, Pileated Woodpecker 2, Acadian Flycatcher 1, Alder Flycatcher 2, Kingbird 2, Pewee 6, Crows 10, Blue Jays 3, Tufted Titmouse 20, White-breasted Nuthatch 15, Carolina Wren 10, Mocking-bird 5, Brown Thrasher 2, Veery 1, Wood Thrush 2, Bluebird 1, Blue-grey Gnatcatcher 4, Loggerhead Shrike 5, Red-eyed Vireo 5, Yellow-throated Vireo 4, White-eyed Vireo 2, Kentucky Warbler 1, Maryland Yellow-throat 2, Redstart 1, Blackburnian Warbler 2, Hooded Warbler 5, Black-and-White Warbler 2, Red-winged Blackbird 10, Summer Tanager 1, Cardinal 12, Indigo Bunting 3, Savannah Sparrow 10, Song Sparrow 2, Field Sparrow 3, Gold Finch 5, Towhee 1, Broad-winged Hawk 1, Yellow-bellied Sapsucker 1, Barn Swallow 2, Catbird 1, Crested Flycatcher 4, Chickadee 20, Flicker 2, Warbling Vireo 2, Worm-eating Warbler 2.

California Birds

By L. B. FULTON

On my excursions along the shore at Carmel, I have come to think of the birds as following fixed courses like the stars. In other words, there are the deep sea birds, alcid, shearwaters, etc., which will receive short notice here; then the gulls, pelicans and cormorants which are constantly flying between the two points of Carmel Bay; next the loons, grebes, and mergansers which float around out beyond the breakers; then the scoters which ride the surf; next the sanderlings and sandpipers which stay close to the shore line; then the plovers, and lastly, certain land birds which like the vicinity of the sea.

Confirming my experiences of this sort, a stroll along the beach today, the first of December, brings the following list:

Western Gull	Loons	Sanderling
Short-billed Gull	Western Grebe	Snowy Plover
Glaucous-winged Gull	Red-breasted Merganser	Killdeer
Cormorants (in flight)	Surf Scoter	Black Turnstone
Brown Pelicans (in flight)	White-winger Scoter	Black Phoebe
		Nuttall Sparrow

Naturally, the grouping of birds varies with time, tide, wind, and weather. For example, in the early morning I may find a hundred or more Glaucous-winged Gulls at rest on the grass of the golf course some distance back from the shore; or, again, several Short-billed Gulls on the shore at the south end of the beach.

When the sun rises over the fairly steep slope which is the site of the town of Carmel, it lights up first of all the rocky points at either end of Carmel Bay. On the rocks to the north Western Gulls are wont to perch. The Western retains in winter its pure white plumage of neck and breast and has a dark slaty mantle. When the white expanse of its breast is lighted by the rays of the rising sun, this gull assumes proportions truly magnificent!

Leaving the beach at the north end and climbing up to the top of the cliff, one finds oneself on a high plateau. This is the Pebble Beach Golf Course. From there one can look down over the edge into a fairly sizable cove with an island in its center commonly peopled with cormorants and gulls. This cove with its rocky promontory, resounding breakers, and precipitous cliffs, I may say, once assumed titanic proportions as I timorously peered over the edge. But today, due to familiarity, it has shrunk almost into ignominy. In these environs the following rock birds are found: Spotted Sandpiper, Black Turnstone, Black Oystercatcher. To the Mid-westerner it may seem rather singular to find the humble sandpiper in such exotic company. Black Turnstones are often seen here in numbers. They are not exclusively rock birds but appear to follow the kelp wherever it is strewn. The striking black and white pattern of the wings and back in flight, and the sudden disappearance of the bird when it folds its wings, are indeed spectacular. No less surprising is that lethargic looking animal, the Black Oystercatcher, with its flesh-colored legs, red eyelids and bright red bill. One might suspect that it had escaped from some neighboring zoo.

The cove described above and Stillwater Cove just beyond are wonderful places for observation. A friend, who taught me what I know about gulls, has a small telescope with tripod which we set up on the cliff to watch the loons, grebes, mergansers, etc. Here we had a good view of the yellow iris of the Golden-eye. Here we also saw the Ancient Murrelet. It is one of the most difficult birds to study, since it has a habit of diving and reappearing at the most unexpected places. Not at all like the Pigeon Guillemots that I saw last summer at Point Lobos, which floated around in the seething waves, every now and then flying up to perch on the ledge of a cliff.

To return to the rock birds, the Wandering Tattler I frequently found this summer, either standing alone on a rock or feeding with the turnstones on the pebbled beach of the cove. With its habit of tilting it might be mistaken for a Spotted Sandpiper but its absence of flight marks makes it readily distinguishable from either the Spotted Sandpiper or the

Surf-bird. To see a Surf-bird one must go farther north, either to Cypress Point or beyond. It has yellow legs and uniformly brownish gray upper-parts when not in flight, that is, in contrast to the Black Turnstone, which has a very dark leaf-like pattern on back and folded wings. Just north of Cypress Point I also saw this winter a Ruddy Turnstone in company with Black Turnstones. It has orange red legs and blackish semicircular markings on the breast. The Ruddy Turnstone, an immature, was using its bill to roll a pine cone down the shelf of the beach. Nearby, a Black Oyster-catcher was uttering its sharp squeal, while in the path of the pine cone stood a large gull which paid little attention to the performance of the Turnstone. The stone-turning habit of these species is indeed interesting. While walking with some friends along the edge of the cliff above the pebbled beach of the cove, one of the party detected a high crackling sound of the stones some distance below. This sound was mingled with the roar of the sea and the lower note of the large pebbles pulled down into the water by the receding waves. A look through a bird glass revealed a number of Black Turnstones who, in search of their breakfast, were flinging stones aside with their bills.



Photograph by A. M. Bailey

Martins

By CLAYTON H. TANNER

The first martin of 1932 was seen flying over the house April 7, high up in the air and singing, and the first black male arrived at my martin house on April 12. It was clear, with a strong southwest wind, and very cool. After the first one arrived the weather was mild, and from then on, they did not have occasion to leave as they do most springs during sudden cold snaps.

The young martins left their nests July 1 and for two or three days after I could hear the young chirping in the top of my neighbor's trees. The day they left the box there were from eight to ten old birds flying about the house making considerable noise and commotion trying to get the young to fly. I never knew whether any of this brood of young birds lived or not, as the old and young did not come back to the box at night to roost as they usually do for a week or so after the young fly.

On July 19, I discovered a large flock gathering at dusk on the roof of the University of Illinois woman's gymnasium located on the south campus. They seemed to come from all parts of town until a large flock would be swarming around the south chimney of this building, some alighting and then flying again. I presume they were strengthening their wings for the long trip south.

This mass flying would start with just a few birds, and within thirty minutes there would be some three or four hundred in the flock. During this time it had grown fairly dusk, and they would gradually settle to the roof. I counted 150 birds silhouetted against the sky with approximately 250 farther down on each side of the slanting part. They would sit thus for ten or fifteen minutes, not a bird in the air, then suddenly fly up in one large mass and disappear on the opposite side of the building. This disappearance was solved on August 10. After leaving the roof of the gymnasium they would fly in a mass directly to the University's forestry where they seemed to dart into the tops of the trees like plummets. Part of this forestry is located due east of the gymnasium, and covers an area one block wide by four and one-half long. I often stationed myself between the building and forestry to watch the martins make their flight. It was a wonderful sight to see this mass of birds upon the roof, perfectly still for ten or fifteen minutes, then suddenly it would seem that, at an appointed time, they would fly up in one large flock, swoop low over my head, gain a little altitude, and dart into the tree tops of the forestry. This routine was not governed by time, but by the growing darkness, because as the summer advanced and the darkness came earlier, this whole thing would be performed proportionately earlier. Clear and cloudy evenings would govern it slightly.



Photograph by C. H. Tanner

MARTINS

Over four hundred birds settled upon the roof of the gymnasium at the University of Illinois.

I watched the martins several evenings and I estimated there were 400 to 500 in the flock, and, in addition, the trees of the forestry were literally loaded with roosting blackbirds, robins, catbirds, and many others that could not be identified because of the darkness. The commotion and chatter was so great that two people could hardly hear each other talk. Blackbirds could be seen coming in from all directions in large flocks.

I returned to the gymnasium again on the evening of August 14 for pictures of the martins. It was clear and there was a large collection of birds. After this date the flock of martins grew smaller and smaller. I presume they were heading south, because they had a long way to travel, to winter in the jungles of Brazil.

On August 27 I went over to see how the martins were, and there was none; they had all gone south.

Urbana, Illinois.

At Trailside Museum

By MARY COOPER

The Trailside Museum, which was opened this past year by the Forest Preserve District, with the cooperation of The Chicago Academy of Sciences, has proven its value to the community. It had been planned to close the Museum for the winter, since the Forest Preserves are used much less by the public in the cold weather than in the summer months, and it did not seem probable that the attendance and interest would warrant the expense of keeping it open. However, Charles G. Sauer, general superintendent, decided to try the experiment, and the attendance has exceeded expectations. The Museum is ideally located in the old headquarters building on Thatcher Road at Chicago Avenue, on the western border of River Forest.

Letters describing the plan and activities of the Museum were sent to the schools of Chicago. As a result, a number of classes have made the Museum a headquarters for field trips in botany and zoology.

The Museum has cooperated extensively with the Boy Scouts, through the Oak Park Council. Paul Ensign, assistant curator, was asked to conduct a morning's excursion at Camp Fort Dearborn, in connection with a conference of Scout leaders. Many Scouts have come to the Museum for merit badge examinations on natural history subjects and a number of Scout troops have used the building as headquarters for hikes. A Training Class for Scout leaders held an evening meeting in the building, studying ways and means of "interesting boys in nature study."

"Interesting boys in nature study," however, has never been one of our problems. When there is no school, boys come flocking to the Museum. So great has been the interest and so much real help to the Museum have these youngsters been, that it was decided to organize a picked group into a Junior Staff. This would give boys and girls who were really proving their usefulness greater opportunities for study and experience, and would make it possible to confine to them the special privileges which they certainly deserve. November 25 marked the formal recognition and rollicking initiation of the first nine members of the Junior Staff. They are: Jean Corbett (River Forest), Charles Groenke (Maywood), Donald Hirsch (Forest Park), Matthias Sasgen (River Forest), Wallace Schwass (Chicago), Henry Skoglund (Maywood), Bayard Tiegan (Oak Park), James von der Heydt (Oak Park), and Bertram Wright (River Forest).

The young people have taken their position as staff members seriously. They feel the Museum is theirs, and any possible criticism of it is a reflection on their stewardship. As a result, they are always alert to find things that might be wrong and to suggest ways to right them.

One of them is most interested in the physical aspects of the place, wanting to clean up, paint up, or do carpentry work. One has taken the Nature Trail as his special project. A third looks after the welfare of the reptiles.

As time goes on, others will certainly be added to this staff. There are always people anxious to try out for the continuous service we expect that enthusiastic staff members will want to give. We usually have more help than we can use.

During the fall, the Museum sponsored a series of fourteen informal talks on subjects connected with the life of the Forest Preserves. Talks were given on such subjects as "Wailing Owls," "Skunks," "Birds of Prey," "Trees of the Forest Preserves," "Winter Flowers," "The Ancestry and Structure of Birds." The groups were small enough so that these talks could be real demonstrations, where the material could not only be seen, but handled, by everyone. Another series is being planned for the Spring.

Several new exhibits have been opened to the public since fall. Paul Ensign has been chiefly instrumental in the preparation of an herbarium of fall flowers. It has been found that if each sheet is covered with cellophane the whole collection may safely be placed where it can be examined by the public. Another interesting botanical collection is an exhibit of trees of the Forest Preserve, showing some 48 of the commoner species, represented by leaves, fruit, bark, and wood. Mr. George Hillman of Park Ridge has installed as a permanent loan a fascinating series of more than a hundred microphotographs of insects and parts of insects. Paul Harris of Chicago presented the Museum with a small collection of arrowheads, spears, and other Indian artifacts collected in the Forest Preserves. Dr. John R. Ball, of Northwestern University, is at present assembling a collection of local fossils, planning to show with each group of fossils the nearest modern form. Bertram Wright, of the Junior Staff, prepared and placed on exhibit a demonstration of the poison apparatus of a rattlesnake.

The Nature Trail was opened in late October. It is a pathway marked by gilded metal diamonds, about a mile and a half long. From the Museum it leads south through open woods, crosses a meadow, descends a steep bank, and circles the slough back of the Museum. From the west side of the slough, it follows the bank of the Desplaines River northward for nearly three-quarters of a mile, then circles through low swampy woodland, up the steep river bank, and through pleasant open woods, back to the Museum. Thus it includes most of the types of plant habitat to be found in the Preserves, in the course of a half-hour's walk. At present only the trees are marked, to the number of about 43 species. We hope that before long the Trail will be a botanical garden, showing along its course representatives of most of the plant life of this locality.

As in the beginning, the living animals attract the most attention and excite the keenest popular interest. The fact that most of them are pets, and may be handled without fear on either side, seems to be, for a large number of our visitors, the most important thing about the whole institution. In November the collection of living animals received a considerable addition, a gift from Mrs. George H. Kriete, of Kenilworth, in memory of her son. The boy was keenly interested in animals of all kinds, but especially reptiles and amphibians. At the time of his sudden death he had a large group of pets, including frogs, tree frogs, salamanders of several species, snakes of several species, lizards, squirrels, prairie dogs, and opossums. Wishing to keep the collection intact, and knowing that her son was interested in the Trailside Museum, Mrs. Kriete gave us all of them, with all the necessary cages, equipment, and food.

Quite contrary to expectation, the average attendance has not dropped, but increased almost steadily. Altogether, the experiment seems to have worked out well. The Forest Preserve in cooperation with the Academy is now working on plans for additional small museums in other parts of the Preserves.

The value of the place as an educational institution seems to me to be hopefully indicated by the rather large number of young people, mostly boys between 11 and 15, who have been coming regularly, day after day. As they leave, at the last possible moment, I often hear them calling to each other:

"Coming back tomorrow?" "You bet!"



THE WINTER WOODS

FIELD NOTES

Barrington Bird Club

Three immature Goshawks were observed near Barrington last winter. They were seen eating newly-killed pheasants, and one was seen carrying off a young turkey from a farm. It was probably one of these Goshawks which we saw pick up a large cat from the far side of our field on January 6th. The bird rose heavily until about ten feet above the ground when the cat was dropped. The cat walked away as if not much injured. On January 10th one of these hawks was caught in a trap on a neighboring farm and was shot as it was attempting to fly away with the trap. It was brought to me and was measured and carefully compared with the descriptions. This was the first time we had had an opportunity to identify the immature Goshawk.

Starlings were seen occasionally during the winter of 1931-1932. On February 25th three sat quietly for a long time in the tree where a pair built a nest the year before. On April 15th a pair began work at the same nest-box. On the twenty-fifth the box was taken down. We found five pale blue eggs in it. We found no other nests. No Starlings have been seen on our farm this winter. One of our members has an old hackberry tree in which Flickers nest every year. Last spring a squirrel first drove out the Flickers, then Starlings routed the squirrel. After one Starling was shot the other straightway brought a new mate and continued building. Five birds were shot before the Starlings were finally discouraged, when the Flickers returned and raised a family.

On May 4th I saw from our own place two Cranes flying at a distance which made it impossible to distinguish anything but the dark tips of the wings. Climbing spirally against a clear blue sky, long necks and legs extended, keeping close to each other, and in perfect parallel, they were a thrilling sight.

During the first week of May a Kingfisher was seen making frequent trips over our farm carrying fish home to the nest hole, a distance of at least a mile from the nearest pond.

On May 21st a dozen members of the club made an excursion to Riverside to look for warblers with Mrs. Baroody, an experience we hope to repeat. That same morning my husband and I saw the first Black-billed Cuckoos we have ever seen about Barrington, in the more than twenty years we have lived here. They sat quietly in a thorn tree, in full view for a long time. We did not see them again.

All observers agreed that birds were unusually abundant during the summer. My husband saw five male Baltimore Orioles gathered about one female, in our woods, in the first week of May, a truly gorgeous sight.

On June twenty-eighth he had the rare good fortune to see a mother Woodcock lead her babies across a side road west of Lake Forest just in front of his automobile.

A perfect albino Robin was seen in and about Barrington during the summer, reported from rather distant points, so we are uncertain if there were more than the one.

In our immediate vicinity Migrant Shrikes, Dickcissels, Vesper Sparrows, and Bobolinks have fallen off in numbers, although we believe the last are increasing again.

An automobile trip of seventy miles on October twelfth, and one of three hundred miles on the next day showed great numbers of Bluebirds scattered along the highway singly and in small groups but quite continuous. This was on the way from north-eastern Iowa to Barrington, the weather cool and rainy the first day, and clear and mild the second.

On October twenty-eighth a flight of ten Rough-legged Hawks was observed.

On November second a flock of perhaps one hundred and fifty Lesser Snow Geese flew over in the forenoon. A much larger flock containing several hundred went over in the afternoon. Both flocks were flying in a rounded u rather than v formation with loose groups between the outer lines.

On November twelfth a Flicker was seen.

Our club made its first Christmas bird census December twenty-seventh. The list was disappointingly small, but, having made a beginning, we hope to give more time and cover more territory next time. Eight members spent the morning in the fields and woods about Barrington. The birds seen were: Red-tailed Hawk, 2; Ring-necked Pheasant, 5; Herring Gull, 3; Screech Owl, 1; Downy Woodpecker, 5; Blue Jay, 6; Crow, 29; Chickadee, 2; White-breasted Nuthatch, 3; English Sparrow, 25+; Tree Sparrow, 25+; one small hawk unidentified. Juncos were unaccountably missing, for they had been seen daily.

RUTH WORK.

Prairie Horned Lark

There are those who contend that the world grows worse because of the callous selfishness and hard-heartedness of its inhabitants, but the following incident decidedly proves otherwise.

On a Sunday morning, about the first of May, at a country club, one of those "Daybreak" golfers discovered a small round nest built in a depression in the center of the fairway, holding four tiny eggs. He carefully stuck a shrub-branch in the ground nearby, to warn those following him. Word of the "find" was quickly circulated around the club and

everyone was looking for the Prairie Horned Lark and her little nest. The groundkeepers were instructed not to mow over it and soon an "island" of longer grass appeared in the otherwise closely cut fairway.

After the babies were hatched interest increased. Men who never allowed anything or anybody to rush a golf shot would hurry past the nest and call to each other to "get away from there so the mother will come back to her babies." The night after they were hatched there was a regular cloudburst. Next morning water stood in pools all over the course. Everyone was so concerned about the Lark family, but investigation proved that the brave little mother had perfectly sheltered her brood. Soon the nest was abandoned but the mother and her "children" lingered about the course all summer, not at all afraid of the players.

When inveterate golfers will jeopardize their beloved game for a mere bird's nest they just can't be all selfish.

J. P. HIGGINS.

The Fall Season in Lake County

By JAMES MOONEY

In spite of the unusually mild weather which prevailed in our area during the Fall of 1932, birds did not seem to be very much in evidence. Undoubtedly due to the open Fall and Winter the birds have had accessibility to food in woods and fields which they relished above the food of my feeding stations. It may be also that I have not the indefatigable patience to sit and wait for hours in the wooded sections for some winter bird to appear. Being more of a wandering bird-student I observe what birds I can while just wandering here and there through the marshes and fields near Deerfield.

There is practically no day during this season that I do not get a chance for a little trip into some nearby wood lot or field to observe what birds I can. On one such trip, on October 22, I made a find that was extremely rare in Lake County as well as northern Illinois, a Turkey Vulture. A single bird was seen each day for nearly a week soaring over the open fields west of Deerfield. Then another appeared on October 30 and was last seen on November 9. Never before had I seen one of these southern birds in this vicinity.

Of the other rarer birds found in western Lake County during the past Fall were two eagles. Not seeing the birds personally I can't say which species they were but probably they were immature Bald Eagles. A Whistling Swan at Waukegan is another infrequent visitor in our district.

The first Snow Bunting of the season was observed at Beach on November 19. On November 11 I found a Red-backed Sandpiper probing along the shore of Lake Michigan near Zion City.

In checking my chart I find the following dates as the last day each of the following birds were observed: Robin, November 30; Marsh Hawk, November 27; Red-winged Blackbird, November 24; Canada Goose, November 23; Sharp-shinned Hawk, November 15; Red-headed Woodpecker, January 16, 1933 (this woodpecker has been in company with five Starlings during the present Winter); Brown Creeper, November 21; Purple Finch, November 6; Sparrow Hawk, January 1, 1933; Mallard, November 10 (there was an unusually large migration of these ducks through Lake County during November); Killdeer, November 15; Bonaparte's Gull, November 20; Old Squaw, December 6; White-winged Scoter, November 24; Bronzed Grackle, November 23; Long-eared Owl, November 20; Gadwall, December 2; Screech Owl, January 13, 1933; Tufted Titmouse, December 2; Bohemian Waxwing, December 28 and January 16 (these birds seem quite numerous in small local groups otherwise rather rare in this region).

Among other Winter birds which can be observed weekly are Hairy and Downy Woodpeckers, Hungarian Partridges, Ring-necked Pheasants, English and Tree Sparrows, Juncos, White-breasted Nuthatches, Herring Gulls, Prairie Horned Larks, Blue Jays, Crows, Goldfinches, Cardinals, and Chickadees.

The above notes have been taken from my daily record. It should be said the above-mentioned species are by no means as abundant as I have seen them in previous years.

Birdhouse Survey in Winter

Mr. C. E. Holcombe of Zion, Illinois, writes of the results of his investigation, about Christmas time, of several houses in his neighborhood which from time to time have been placed for Flickers. In each of four of these he found a Screech Owl of the red phase, in one he found pellets and bird feathers, in one a mouse (presumably a White-footed Mouse), and in one a Red Squirrel. The histories of two of these boxes are interesting. In one he banded, May 5, a gray Screech Owl. On May 8 the owl had gone. On the 16th the box contained three Starling eggs; on the 21st there were six eggs which he took with the nest. There was a new nest on the 27th, and on June 3 it contained three eggs. The eggs had hatched June 14, and Mr. Holcombe banded the five young on the 22nd. When they flew, on July 2, he found a quantity of cherry pits in the nest. Then at Christmas he found the red Screech Owl as above noted.

In the other box he banded a Screech Owl and two young June 9. On July 18 there were four young Flickers in the nest, and these were banded. And then, also as above noted, his Christmas survey revealed a

Screech Owl in the nest, which, as shown by the band, was the parent he had banded on June 9.

E. R. FORD.

Berwyn Bird Notes

By ORPHEUS MOYER SCHANTZ

The city of Berwyn is well located to benefit from the bird population that has its base in the heavily timbered Des Plaines River Forest Preserves only about a mile west of us. When it is remembered that as late as 1896, in the northwest corner of Berwyn, except for that portion which includes the natural growth of trees that at one time covered the ridge known as Riverside Drive, there were no trees of any kind, except perhaps an occasional seedling cottonwood, it is hard to believe that the beautiful elms which line many of the streets are less than 40 years old.

A recent casual survey of the trees found growing in Berwyn resulted in the identification of at least 60 species and varieties, many of them grown to large size. The tree growth with the profusion of shrubbery planted in almost every yard, has provided ideal conditions for not only summer resident birds, but for the vast numbers of spring and autumn migrants. These conditions are not different from those of many other suburban communities, but they are cited to prove that possibilities about Chicago are growing better for a continually increasing bird population.

Quite naturally with the abundant tree and shrub growth there is an accompaniment of insect pests, the birds' natural food supply. While at times certain insects may increase to dangerous numbers, the birds under normal conditions keep them under reasonable control. When about 10 years ago there was an alarming invasion of the white-marked tussock moth in Chicago's suburban district, there was a concentration of both the cuckoos in Berwyn never before equalled. So effectually was the invasion checked by the cuckoos and other birds, aided by certain parasitic insects which infest the tussock moth larva, that not since has the moth been a menace.

During the summer of 1932, it was noted that tussock moth cocoons were quite conspicuous on the trunks of the elm trees, and as usual the writer as far as possible destroyed them on his own trees. Much to his surprise the caterpillars were not those of the "white-marked" species, but were the "well-marked" variety, almost if not identical in size and appetite, but lacking the distinctive markings of the former, being almost entirely light yellow. During the summer it was noted that birds not usually partial to "woolly caterpillars" were feeding on the larvae. One day a young Robin was seen eating caterpillars, first shaking them and otherwise mauling them to break down the hairs before swallowing them.

Many other birds, particularly the Downy Woodpecker, destroy both larva and eggs of other insect pests, that infest shade trees and would soon denude them of leaves if unchecked. A noticeable increase in nesting birds has been discovered in our block, with almost every summer some welcome newcomer. During the last summer the persistent notes of the Red-eyed Vireo were heard almost daily during the nesting season, but no nest was discovered until after the leaves of the elm trees had fallen. Then out near the tip of a slender branch was found the tiny basket nest, directly over the street.

Our street is named Maple Avenue, a misnomer, for there is only one lone maple in the parkway. Inside the lot line and in the parkway on either side of the street are rows of beautiful elms that now meet overhead. In this leafy roof Robins and Grackles find ideal nesting sites, the latter in such numbers as to be almost at a status of pests. Thrashers, Catbirds and Cardinals nest in the thickets of shrubbery, which during migrations serve as shelter and feeding grounds for hosts of warblers.

The high-bush cranberry (*Viburnum opulus*) has been much planted in Berwyn, and in late summer, through the winter and early spring, its red berries decorate the bare branches. Last spring, in the last days of March, these berries with a side-dish of privet berries were the drawing card that brought a flock of about 50 Bohemian Waxwings to us. Apparently they are not over particular in their choice of food. No one who has ever adventured in tasting these berries ever does it the second time from choice; but then who would eat caterpillars or plantlice?

In the writer's back yard is the stub of a large cottonwood tree, about 16 feet high and 2 feet in diameter, which has been of great interest to the Downy, Red-head Woodpeckers and the Flickers. Each in turn has visited it in search of free lunches, the Flickers last year building in it. The death of the tree was primarily brought about by the ravages of large carpenter ants, whose galleries had reduced part of the trunk to a skeleton. When they were discovered we injected into the trunk with a sprayer, a powerful insect eradicator which effectually finished the ant invasion, for they disappeared and none has been seen since.

Not only has the old stub furnished nesting site and food for the Flickers, but it has been a host for at least four species of fungi, and at its base several times during the summer there have appeared large colonies of the edible ink-cap mushroom (*Coprinus atramentarius*) which we do not eat.

Never, since we came to Berwyn, have there been more Robins in evidence, and at the close of the summer the young Robins were everywhere unusually abundant.

One was noted with the upper mandible of the bill so deformed that it could not feed itself. Evidently it was fed by other Robins than its parents, for it was full grown and long out of the nest.

So far the Starlings have not been reported as nesting in Berwyn,

but many have been seen feeding in vacant lots, and the writer located a nest in a partially decayed oak tree along Ogden Avenue, just west of the Berwyn city limits. Several hundred strange birds have recently been reported as feeding at the edge of Mt. Auburn cemetery about one-half mile south of Berwyn, which are no doubt Starlings. As late as the end of December several Robins were still present, and a number of Cardinals and Blue Jays may be seen almost every day.

White-throat Sparrows and Juncos remained with us for a number of weeks, during which time they evidently gleaned the seeds of crab-grass in our back yard.

Without question, the summer bird population of Berwyn is increasing, and it is believed that a careful census would show a very considerable number nesting each year within the city limits.

Field Notes

By ESTHER A. CRAIGMILE

One evening in September we reached the cottage in the timber, along the Tippecanoe River near Winamac, Indiana, about nine o'clock. As we unlocked the door a Barred Owl furnished a blood curdling solo. It continued about 15 minutes. This Fall is the first record I have for it in this locality.

An hour later the Great Horned Owl made the trees tremble with his fearsome voice. He is a common resident. Toward morning the familiar notes of the Screech Owl were heard. I did not arouse my guests to hear the third solo. I count it a record night when three species of owls serenade.

Toward evening November 29, 1932, I visited Thatcher Woods, (Cook County Forest Preserve District), noticing many flocks of Starlings moving about in characteristic flight. A year ago I found small flocks of Starlings frequenting the Grackle roost during Fall migration.

The huge cottonwoods west of Trailside Museum were dotted with birds, Grackles being much in the minority. Many Hawks were migrating that day and as they soared past the trees the Starlings took flight, returning later to the roost. As near as I could estimate there must have been 10,000 Starlings. I had seen a flock of 1,000 near La Porte, Indiana, in August. We had flocks of 200 and 300 in North River Forest last Winter. I find small flocks of them all the year. Do some Starlings migrate south with the Grackles? It would seem that foreign birds might need guides in a new country.

Rockford

The Nature Study Society of Rockford, Illinois, with its membership of 35, has continued its work of bird and wild flower conservation. This year early in the Spring a plea to farmers not to burn brush piles until after nesting time was put in the daily papers with the hope that some would heed it and many young birds would be saved.

The regular meetings held on the first Saturday of each month have been well attended and interesting in character, many new places having been visited. In May the Society went by bus to "Wychwood," a bird and wild flower sanctuary at Lake Geneva, Wisconsin. Upon the death of Mr. Chas. Hutchinson who owned the estate, it was endowed and turned over to the State of Wisconsin as a bird and wild flower sanctuary, Mrs. Hutchinson to have life use of it as her summer home. It is a very interesting place to visit especially in the Spring, as many of the rare wild flowers are growing there and 108 kinds of birds find protection and nesting places.

As usual the Society took part in the annual Christmas bird census. Ten members went out in three groups covering the territory northwest, northeast and southwest of the city, rounding up at noon at Macktown Forest Preserve for a steak fry and comparison of lists. The list of birds seen was as follows: 26 Goldfinches, 36 Tree Sparrows, 11 Red-bellied Woodpeckers, 3 Red-headed Woodpeckers, 3 Hairy Woodpeckers, 5 Downy Woodpeckers, 2 Rough-legged Hawks, 1 Sparrow Hawk, 1 Fish Hawk, 12 Blue Jays, 1 Mourning Dove, 7 Titmice, 5 Cedar Waxwings, 1 Kingfisher, 1 Wilson's Snipe, 50 Juncos, 11 Quail, 8 Starlings, 26 Chickadees, 2 Cardinals, 500 Crows, 100 English Sparrows.

During the Spring Miss Edith Van Duzer, one of our most enthusiastic bird students, is in the field at least two half days a week. In addition her home is near Rock River, so she sees many water birds, and the birds following watercourses in migration literally come to her door step. Each week during the Spring she writes for the Sunday paper under the title of "Birds of the Week" a description of birds seen and their characteristics. She has by far the longest bird list of anyone in this vicinity, and it is this list with a few additions that makes up our bird list for the year. This year it contains 204 kinds.

The Society holds its membership in the National and State Audubon Societies and in the Illinois Academy of Sciences. In April it planted a white spruce on one of the school grounds in commemoration of the Washington bicentennial. It also presented a bird chart and the year's copies of Bird-Lore to the Crippled Children's Room and gave to the Jack Miner Fund for feeding wild geese.



Photograph by A. M. Bailey and W. I. Lyon

THE SAW-WHET OWL

Carbondale

A report from Mr. Carl Gower giving an interesting seasonal contrast.

For the vicinity of Carbondale I will give the results of two field trips which will show as nearly as possible the difference between summer and winter residents in this region. All but seven of the birds in the first list are residents here. These two sets of notes were compiled over practically the same territory and occupied approximately four hours each.

May 7. Weather bright and clear. Oven-bird 5, Chipping Sparrow 11, Crested Flycatcher 14, Quail 6, Little Green Heron 4, Red-headed Woodpecker 18, Brown Thrasher 8, Catbird 2, Wood Thrush 2, Summer Tanager 1, Crow 6, Meadowlark 12, Tufted Titmouse 1, Chickadee 10, Purple Grackle 10, White-throated Sparrow 10, Myrtle Warbler 8, Cedar Waxwing 20, Cowbird 9, Killdeer 8, Indigo Bunting 4, Red-bellied Woodpecker 2, Chat 1, Veery 1, Kingbird 1, Spotted Sandpiper 2, Martin 15, Phoebe 1, Chimney Swift 50, Blackpoll Warbler 1, Baltimore Oriole 1, Ruby-throated H. B. 1, Robin 100, Magnolia Warbler 1, Maryland Yellow-throat 17, Dove 18, Bank Swallow 4, Cardinal 14, Field Sparrow 10, Blue Jay 20, House Wren 6, Bronzed Grackle 25, Goldfinch 20, Flicker 5, Bobolink 14, Carolina Wren 10, Mockingbird 4, Bluebird 3, Towhee 12, Red-winged Blackbird 30.

December 27. Weather clear and about 65° F. Bluebird 25, Blue Jay 8, Field Sparrow 10, Crow 2, Cardinal 50, Goldfinch 2, Junco 28, Song Sparrow 5, Downy Woodpecker 2, Chickadee 24, Tree Sparrow 50, Hairy Woodpecker 1, Flicker 1, White-breasted Nuthatch 2, Tufted Titmouse 10.

Quincy Nature Diary for 1932

By T. E. MUSSELMAN

Until January 6 there were but two freezing nights. January 10 I saw a few Tree Sparrows and Juncos, all singing, but counted 16 Bluebirds, 2 Robins, 4 Red-bellied Woodies, Hairies, Downies, Flickers, Nuthatches, Titmice, Chickadees, lots of Cardinals, several Carolina Wrens and a flock of 75 Starlings, a Red-tailed Hawk, 5 Sparrow Hawks, Blue Jays, Prairie Horned Larks, and Crows. Saw my first dandelion. January 13, first ladybug, hundreds of dandelions in bloom. January 18, first "Peto" of Titmice and "Pewee" of Chickadee. January 26, first Cardinals singing. January 28, complete set of Great Horned Owl eggs taken from a cavity in a sycamore tree. January 30, big flight of Cedar Waxwings came in on today's zero wave. January 31, first Migrant Shrike.

February 4, first Meadowlarks singing. Robins singing. Plenty of Bluebirds. February 7, saw my first pilot black snake. February 10, temperature 76 with thunder, lightning, and rain. February 22, Doves and Song Sparrows. Frogs chirping. They were heard chirping every winter month this year. February 25, maples in full bloom. February 28, thousands of Lesser Scaup Ducks passing over; first Kingfisher. Strings of Canada Geese fly over. First goatweed butterfly. February 29, elm trees in full bloom. Grackles and Red-wings here.

March 1, big flock of Doves. March 5, caught and banded several Green-winged Teal; also Mallards and Pintail. Caught first Coot. Today's freeze killed the elm seeds, which means the Goldfinches will feed upon the ground, eating dandelion seeds this year. March 12, first Fox Sparrows. March 16, first Martin and Chewinks. Huge flocks of Red-wings passing over. First Great Blue Heron on Illinois River. March 25, first Phoebe. Saw flock of forty Killdeer. Caught and banded a pair of Baldpates. First Field Sparrow. Carp have begun to roll. March 28, first Shoveller Ducks. Treetoads singing in water. March 29, first Brown Thrasher. Many Fox Sparrows here. March 30, Field Sparrows singing in the meadows.

April 1—dwarf white trillium in bloom. First Greater Yellow-legs. April 2, first painted lady butterfly. Chippies singing. April 3, Tree Swallows came in on last night's south wind. Yellow butterflies are tagging the spring beauties and hepaticas. Ruby-crowned Kinglets, like tiny olive wrens, are investigating the swelling buds of the lilacs, singing when their enthusiasm can't hold itself longer. Black and white skipper butterflies are out. April 4, Brown Thrashers are singing. Found a dead Henslow's Sparrow, killed by a bump against a plate glass window. April 5, first cabbage butterfly and many dragon flies. Poplar trees are in bloom, while the bloodroot first showed blossom today. Found my

first nest of Killdeer eggs today. April 6, silver poplars in bloom. April 7, box elders and forsythia in bloom. April 9, five nests of Bluebirds, three with five eggs, two with four eggs. Found two Dove nests with eggs, one nest on the ground and one in a last year's Robin's nest. Woodcocks have eggs. April 14, Swifts are back from Central America. April 15, spice bush in bloom. April 16, redbud trees, anemones, sassafras, blue and yellow violets, Dutchman's britches in bloom. First Bank Swallows catching caddis flies over mill creek. Myrtle Warblers and Water Thrushes are the first of the warbler group to appear. April 17, crow-foot in bloom. Titmice have eggs. Cardinal nests complete with eggs. Have found paper and chewing gum wrappers, even tin foil in their nests this year. Hard maples in bloom. Caught a fox snake. Whippoorwills are here. Great Blue Herons have eggs. April 19, the gorgeous Papilio Asterias is toying with the plums and pears, which are just in bloom. House Wrens are here. April 20, shepherd's purse is in bloom. Morell mushrooms are numerous, particularly under the elm trees. Big flight of Cormorants. Increase in Swifts. April 21, Helldivers are here. April 22, many snakes are out, mashed garter and fox snakes are particularly numerous on the hard roads. Wood Thrushes here. Brown Thrashers carrying brush for their nests. White-throats singing their "Peabody" songs. April 23, Rose-breasted Grosbeaks found the sunflower seed on my feeding shelf and awakened me with their fine song. Bluebells and Sweet William make the hillsides blue. Goldfinches are on the ground feeding on dandelion seeds. April 24, Red-headed Woodpeckers have taken command at my feed tray. Increase in large yellow morell mushrooms—mighty good with beefsteak. Also picked my first mess of inky caps. Blue Jay has four eggs in the hedge fence. April 25, painted trillium in bloom; also wild carrots. Cliff Swallows and Crested Flycatchers came in last night. The tiny Blue Gray Gnatcatcher is collecting nesting material and building on top of an old shellbark hickory limb. April 26, Warbling Vireos are here and are singing. April 27, young Woodcocks out today. The native who showed us the nest says he shoots several dozen each Fall on Bay Island. The mother Woodcock returned to young when we were within four feet of the youngsters. April 28, Grasshopper Sparrows are buzzing in the grass. Found a fence post with an exposed Bluebird's nest in a partial knot-hole. Four eggs were gleaming like big turquoises. They have used this location for four years. April 29, ground squirrels are above ground. April 30, Yellow Throats are singing "Witcheree," while the Pine Warblers are complaining in the trees.

May 1, Common Terns are picking bugs off the water. Pawpaws in bloom. Red-wings have eggs. Found three nests of Upland Plover, four eggs in each.

May 2, Dickcissels are here; likewise Baltimore Orioles. A thousand Great Blue Heron babies broke shell this week at two heronries up-river. May 3, Kingbirds are chasing Crows. Four young Shrikes

were banded in the nest. May 4, buckeyes in bloom. May 5, big flight of small birds flying overhead tonight. Nighthawks here. Wild cherry blossoms add their odors to the air. May 6, new birds after the wave of last night: Red-eyed Vireo, Yellow Warbler, Prothonotary Warbler, Nashville Warbler, Orchard Oriole, Blue-winged Teal, Pectoral Sandpiper. May 7, new birds: Chestnut-sided Warbler, Catbird, Wood Pewee, Cape May Warbler, Wilson's Warbler, Mourning Warbler, Least Flycatcher, Bell's Vireo, Yellow-breasted Vireo, Redstart, Humming Bird, Spotted Sandpiper. Bumblebee. Clearwing moths are out pollinating the Sweet Williams. A House Wren pulled four four-day-old Phoebes out of a nest under our cottage eaves. Indigo Buntings are merry on the telephone poles. May 7, Mr. Minear of Quincy High School caught fifteen rattlesnakes in a deserted quarry. Caught two eel, a fresh water drum and a catfish today. May 8, wood anemones and lilies-of-the-valley in full bloom. May 9, wake robin and cowslips bursting into bloom. Lark Sparrows and Cuckoos arrived at last. A few Scaup Ducks are still here. Bobolinks are sitting on the fences between the clover fields. May 11, June beetles are disputing the rights-of-way with automobiles. May 12, a new odor tells us that black locusts are blooming. May 13, first fireflies. May 14, iris is in its glory. Wild larkspur is making the hillsides gorgeous. May 15, nature's finest perfume is here—wild grapes are in bloom. May 16, bloodroot seed pods breaking. From twenty-four to forty mahogany seeds in each pod are carried away and planted by black ants. May 27, swamp white anemone in full bloom. May 28, showy orchis in bloom.

June 2, a male Osprey was killed south of town. No record of a nest, however. Persimmons in bloom. June 3, a new odor—protect us from the stretch of the tree of heaven! Young Nighthawks hatched today. June 7, wild iris is spotting the lowlands with blue. June 8, I picked a dozen caps of faun-colored pleutius (*Cervinus*) and had a meal such as only the elect enjoy. June 9, captured an albino immature Grackle—sent specimen to Field Museum, Chicago. Found a nest of Prothonotary Warblers in an old rubber tire used as a bumper for boats on a dock. I banded the young birds. Cormorants sitting on eggs. Herons nearly full grown and crawling out on the limbs. I banded about fifty. In the fall, one of these, during its night migration, mistook an Oklahoma oil pond for water and plunged in. It was rescued and cleaned, later released. June 12, the state road highways are heavy with color, with such blooming beauties as black-eyed susans, cone flowers, meadow rue, red clover—oh, such a wonderful odor! daisy fleabane, spiderwort (in bloom during the morning only), yellow flowering sweet clover, wild parsnip. June 13, chestnuts in bloom. June 14, first rainbow. June 15, a new odor—basswood is in bloom; 'tis most delicate. June 19, saw a Bald Eagle attack a heronry. The great parent birds bravely attacked the Eagle, which later alighted on a dead tree. Here the Red-wings and

Tree Swallows pestered it until it flew away without its meal of young Heron. I studied the water under the nests and found the regurgitated fish were largely shad and carp—one catfish and one sunfish; the rest were largely frogs, crawfish, and a snake. There wasn't a single game fish in evidence. June 21, vervain in bloom. June 25, caddis flies emerged from the Mississippi. The clouds of them hung a foot deep on posts. Over two wagonloads of them were shoveled up on the bridge at Ft. Madison, Iowa. June 26, I enjoy a new odor—elderberries spread their huge white heads to the south.

July, vacation in Carolina. July 26, first Egrets arrive from South. They, together with Snowy Egrets and immature Blues, are very common at Quincy. Yearly we record several hundred of them. They remain until September.

August 8, Blackbirds and Robins flocking. August 9, Black Terns are dipping along the river dykes. August 15, burning poker in best bloom. August 16, a fox snake has a litter of thirty-three young. August 17, little brown ants (females) are flying. Martins are flocking. Three hundred birds were trying to crowd themselves into one box at Hamilton, Illinois. August 19, luna moths are numerous. August 18, found a Dove nest with two fresh eggs. August 19, a mother Quail took off a brood of sixteen birds from seventeen eggs today. These tots will be about the size of sparrows when the season opens, and the young Doves will probably die in the nest from starvation, as the season will open before they are able to fly. August 24, cardinal flower makes the swamps brilliant. August 25, first buckeyes on the ground.

September 9, Caspian Terns are on all river sandbars. September 14, Pintails and Blue-winged Teal are here. September 26, walnuts falling. September 30, a Cormorant captured at Golden.

October 2, pennyroyal seed falling. October 3, although a late spring arrival, Nighthawks are still here. October 4, picked a half bushel of hickory nuts from ground. October 5, picked my fall crop of chestnuts. October 9, banded 234 Swifts, 17 White-throats. October 10, big flight of Cormorants. October 15, Swifts gone. The catch was small this year, with few juvenile birds. The constant rains of June caused the glue holding the nests to give way and the majority of this season's crop was precipitated to the bottom of the chimneys. October 16, Canada Geese arrive in numbers. October 26, four Northern Pileated Woodpeckers were killed this week by unknowing hunters.

November 1, a Canada Goose the size of a Mallard was killed on Oyster Island. I was unable to see the bird to identify it, but it meets every description of a Cackling Goose, which must have strayed in from the West. November 5, two Bonaparte Gulls were killed today on the river. Big flight of Blue-bills today. November 7, Canvasback Ducks here. November 8, Robins singing. Two Black-bellied Plovers were killed on river sandbars. November 10, the big duck flight occurred

today. Zero weather in Canada with a high over Saskatchewan and a low near the Gulf produced a through wind. Everybody got his limit of ducks by ten o'clock. November 13, a farmer killed a mature Bald Eagle—8-foot wing expanse. November 15, mounted a beautiful Pintail-Mallard hybrid. November 17, Golden-eyes, Scoters and Butterballs are here. November 18, another Pileated Woodpecker brought in by a hunter who thought it a Woodcock. It is normally called Cock-of-the-Woods. November 27, garter snakes out. Flickers and Sapsuckers using my suet.

December 12, a Long-eared Owl was killed and brought in for identification. Water cress still green and crisp. Banded a Winter White-throat. December 14, killed a hybrid Cottontail Rabbit. No tularemia in wild rabbits reported this year. December 25, saw Red-headed Woodpeckers, Meadowlarks, and Pine Siskins today. December 26, found a live red bat behind a south shutter. It had survived the zero weather. December 27, a female Quail trapped and banded by Russel Davis of Clayton was half again the normal weight. The increase in acreage in soybeans has been a life-saver for Quail, as this seed supplies the legumes they require.

The Illinois Audubon Society will have a booth at the annual Flower Show to be held by the Garden Clubs of Illinois at the Navy Pier, Chicago, March 31 to April 8, and there will be purchasable there all the various material which the Audubon Society handles. There will be not only the pictures and other literature for information, but the bird food which will attract the resident birds to your garden.

Events of 1932 Bird Banding

WM. I. LYON

Two immature Whistling Swans arrived on a pond along the shore of Lake Michigan about November 15, 1931, and remained there throughout the winter, until March 15, 1932. About November 1 two adult Whistling Swans arrived on the same pond, but were frightened away. The next day one came back and has remained until the present date, December 31, 1932.

Two colonies of Double-crested Cormorants were located in the North Channel, Canadian side of Lake Huron, and thirty-three young Cormorants were banded. On September 26, 1932, one was found dead at Tarboro, N. C.

Ninety-three Great Blue Herons were banded last Summer. Also, we located a large colony of Black-crowned Night Herons and, though

most of the young were flying, we were fortunate in banding 106. We hope to make a good record with this colony in 1933. We banded a fledgling Piping Plover ten miles south of Escanaba, in Green Bay. This is an interesting northern record. Our annual trip added 1,275 Herring Gulls to our list, making our total banded, 8,929. Three hundred and thirty-nine Ring-billed Gulls were banded, bringing our total to 2,250. Seven hundred and thirty Common Terns were added to the list, making our total 6,792. In 1932 we received word that one of our Common Terns, banded in Green Bay, July 22, 1931, was killed at Mensabe, Panama, June 23, 1932.

We arrived at the Caspian Tern colony on Gravelly Gull Island at an opportune time and had the best results obtained during our nine annual trips, banding 424. Because of the low water the Caspian Terns had started two smaller colonies on the lower ground, which in other years has been under water. The small colony of Caspians on the west side of Green Bay had increased, and we banded 36.

A new type of trap succeeded in catching five Screech Owls this Fall. Four Saw-whet Owls in the traps this Fall pleased us very much, and brings out total up to 8 for the last eight years.

The chimney of the City Hall at Waukegan yielded 318 Chimney Swifts. A Phoebe, trapped in November, was an unusually late record. Hermit Thrushes seemed more plentiful this year. One of the real thrills of the year was the Bohemian Waxwings, which arrived the last of January, but could not be induced to enter a trap until the last of February. Finally we placed half-spoiled apples on branches, with the rotten side up, and as soon as they had eaten into the fresh part, they were easily baited into the traps with fresh apples. During the first week of April, 131 were trapped. When they left, word was received that one was caught in Saskatchewan, 1,100 miles to the northwest, 22 days after being banded. Twelve Cedar Waxwings were trapped with the Bohemians during April.

Sixteen Cardinals were trapped in 1932, which is the largest number in ten years. White-throated Sparrows were more plentiful in the Fall migration than for the past twelve years. Eleven hundred and thirty-seven were trapped, which passed the 10,000 mark without a single return to the station.

The total of birds banded since 1913 exceeds 51,000.

Waukegan, Ill.

Port Byron

Mr. J. J. Schafer again reports some of his valuable observations from his area along the Mississippi River in northwestern Illinois.

Starlings raised two broods of young in our orchard last summer. Their first nest was in a Flicker's hole in an old apple tree. After the young Starlings left the nest on May 18, a pair of Flickers took possession and raised a brood of young in it. The Starlings' second nest was in a Woodpecker's hole in the next row of apple trees, about 30 feet from the first nest. The young left on June 24. In another limb on the same tree, English Sparrows raised a brood of young, and seemed to get along very well with the Starlings. Starlings are very quiet, are poor singers and are very shy. We saw them looking at the Martin house several times and at a Flicker's box, but when they saw us watching them they left.

On June 23, my brother shot a large bull snake which was gliding around and hunting birds on the limbs of a spruce tree in our front yard. I noticed the snake when I saw some birds darting at it on a limb about 10 feet from the ground. We shot another large bull snake in the same tree several years ago when it was trying to swallow a young Robin.

Cliff Swallows built 168 nests under the eaves on our barn this year, and were very successful with their young; most of them raised two broods, and none of the young fell out of their nests.

My Christmas census was taken on December 27 and is as follows: Fields and woods three to five miles southeast of Port Byron; 8:20 to 10:15 A. M., and 12:15 to 2:30 P. M. Clear; ground bare; wind south, moderate; temperature 27 degrees to 45 degrees. Six miles on foot. Rough-legged Hawk, 1; Bob-white, 25 (two coveys); Screech Owl, 1; Great Horned Owl, 1; Red-bellied Woodpecker, 3; Red-headed Woodpecker, 50; Hairy Woodpecker, 2; Downy Woodpecker, 6; Prairie Horned Lark, 1; Blue Jay, 7; Crow, 10; Chickadee, 18; Tufted Titmouse, 14; White-breasted Nuthatch, 7; Brown Creeper, 1; Starling, 3; English Sparrow, 25; Cardinal, 1; Redpoll, 2; Junco, 35; Tree Sparrow, 30; Total, 21 species, about 243 individuals. Other species seen during December were Bluebird, Marsh Hawk, Flicker and Blackbirds.

Athens

Mr. Watson Hall again reports for his area and draws a contrast with former years.

Four American Egrets were seen between 5:30 and 6 A. M., July 12. Two were together and stopped for a moment in a grove of pines before continuing. All were flying rather "aimlessly" northwest, and low enough so their yellow bills and black legs were clearly visible. An old settler said they were the only "White Herons" he had ever seen here.

The only Turkey Buzzard of the year was recorded September 10.

Two large flocks of Geese went over on October 30 and 31. There were at least 1,000 in each flock.

Bob-white evidently enjoyed a good year. My shooting journal indicates a 35 per cent increase over 1931 and a 65 per cent increase over 1930. An Athens sportsman, who bagged 137, said there were more left in the coverts than he had ever known before.

Two Ospreys were shot along the Sangamon this fall. One of them, according to report, from a flock of five.

An adult Bald Eagle was seen December 26. It was following the river valley north.

The severe December weather makes the bird life of this Christmas contrast sharply with that of last year. Starlings are notably scarce. A few Doves and Red-headed Woodpeckers linger in favorite places.

Mount Carroll

The Misses Cramer report from portions of Jo Daviess and Carroll Counties.

During the week following Christmas we made several short trips and one long one in the northern part of Carroll and the southeastern part of Jo Daviess Counties, but saw only the usual birds in their usual habitats. Every thicket had its quota of Chickadees and White-breasted Nuthatches. The fields were cheerful with Tree Sparrows, Juncos, and a few Horned Larks. In the woods we found the Downy and the Red-bellied Woodpeckers. The latter have been with us for about five years both winter and summer. There were some very noisy Blue Jays and many Crows. Two pairs of Red-tailed Hawks on two different wooded hillsides were soaring about and screaming cheerfully above their old nesting sites. We saw a smaller, more slender, darker hawk watching a flock of Juncos, but we couldn't identify it. We saw and heard less of the Cardinals along the streams than usual.

About our buildings there are several pairs of Starlings but they are very shy and you have to look sharp to see them. On our feeding shelf we have many Chickadees, White-breasted Nuthatches and Downy Woodpeckers. The Juncos come to the window, but feed on the ground under the shelf.

Last spring at one time we counted the following nests in our house-yard: three Robins, three Starlings, one Mourning Dove, two Orioles, one Blue Jay, three Wrens, one Flicker, one Red-headed Woodpecker, and twelve English Sparrows. A pair of Bluebirds had built just outside the yard in a hollow fence post. Early in March of last year a flock of Bohemian Waxwings fed about our yard for several days.

BLANCHE AND BERTHA CRAMER.

Notes From Sullivan, Illinois

By LOREN BRUMFIELD

Golden Plover

In April of 1928 I saw about one hundred plover feeding in a pasture land two miles northwest of Sullivan. I stopped my car and allowed some of them to approach within fifty yards of me. Since I had never identified the Golden Plover I determined to come back the next day with my field glasses. After I had viewed them through the glasses I was positive of my identification. I talked with several of the old residents of Sullivan; they told me that they had seen others there during the spring for many years. The birds seemed to be feeding and resting and were not easily frightened; but when they were, they usually all took flight at the same time, would circle for some distance and again alight near the same place or in a nearby pasture.

I saw the Golden Plover in the same fields again in April, 1929, and in April, 1930. But in the spring of 1931 they failed to return to their old haunts. However, I did see them about 12 miles straight south near Windsor, Illinois. They usually remain about two weeks before leaving for their nesting ground far in Canada.

Do Hawks Have a Common Resting Ground?

About five miles east of Sullivan is a little branch called Jonathan Creek. The creek meanders along near and across the road for a distance of two or three miles. Along this branch are little groves and woods pasture of mostly elm with a few hickories and oak. Here my partner and I have observed many hawks, Cooper's and Sharp-shinned Hawks and a few Red-tailed and Red-shouldered Hawks. The great majority of the hawks rest in certain favorite trees. I believe that hawks from a radius of several miles use this community as their resting grounds. It is seldom that hawks can be seen here except from noon to evening. I believe that for generations back the parents have used this community as their resting grounds, or it may be that the hawks have a certain route that they cover in their hunting and visit this community only once every two or three weeks, stopping for a rest of a few days. I am certain that these hawks are not raised within ten or fifteen miles of this place.

I love to see the Red-tail soar high above me over the fields and woods; I love to startle the Cooper or the Sharp-shin in the heavy woods and see him dash madly away to safety, but I feel that he sometimes becomes too numerous and plays havoc among the game and song birds. I have driven over most of the territory around here and I fail to find hawks except in the Jonathan Creek community.

The Prairie Chicken in Moultrie County

I believe the Prairie Chicken to be practically extinct throughout this section of the state. I have not heard of one being seen in this county for

some six years. In the fall of 1918 I saw a flock of some 50 or more and at the time it was believed these were the only ones in the county. Not many of these birds were killed by hunters. The birds simply failed to nest and reproduce, vermin took its toll, the elements and the decrease caused by natural routes have exterminated this flock. They have been too crowded by close farming to nest. No place has been left them except a little edge of grass along a wire fence where crows search out their nests and where the house cat and other predatory animals are wont to travel. The Prairie Chicken has been crowded out by too much "Civilization."

The Quail Situation

Quail have been more plentiful this season than they have been for several years. The summer of 1932 was a good nesting year. I believe that some quail raised two broods instead of the usual one brood.

Quail have changed their habits during the past 20 years. Some years ago, when flushed, they would fly for a short distance and alight and could be flushed again, but not any more. Now when a covey is flushed and marked down, you may go at once to the spot but usually you fail to find the quail, even though you have a good dog. As soon as they alight they run and will often run three or four hundred yards before stopping. When quail hear you coming they usually run out of your line of travel and it is almost impossible to find quail without the assistance of a good dog. I have had hunters tell me that quail run more now than in former days. They believed that our quail are becoming mixed with the Mexican quail that have been imported into Central Illinois during the past ten years, but I believe it is because they have been hunted so close that it has become a survival of the fittest (the best runners). I have helped liberate several crates of Mexican quail during the past ten years. I have watched for results but I have seen none. I believe that the Mexican quail that have been liberated in Central Illinois have easily fallen prey to enemies and elements that they knew but little about. They have simply failed to mate and raise young.

The English Pheasant

Ten years ago we had many English Pheasants throughout Moultrie county. I have seen as many as a dozen in a three hour walk. I have now seen but two pheasants during the past three years. There are just a few left in our county. They have been killed off by hunters and I believe that ninety-five per cent have been killed out of season. A majority have been killed during heavy snows when they can easily be tracked. The English Pheasant could hold its own against hunters if it were hunted only in the open season. Much has been said about the pheasant killing young quail and destroying the nests of quail, but so far as I have been able to learn no one has ever had any evidence of this. I believe there is room enough for the pheasant and our own native birds.

Notes From Ottawa, Illinois

By FRANK BELLROSE, JR.

Several field trips were taken during the Christmas week, the major one occurring on December 26, when the following birds were seen: Lesser Scaup, 7; American Merganser, 5; Red-tailed Hawk, 3; Bob-white, 22 (two coveys); Ring-necked Pheasant, 1; Herring Gull, 65; Ring-billed Gull, 8; Kingfisher, 1; Downy Woodpecker, 20; Hairy Woodpecker, 2; Prairie Horned Lark, 2; Blue Jay, 42; Chickadee, 30; White-breasted Nuthatch, 1; Brown Creeper, 2; Red-winged Blackbird, 110 (three flocks); Goldfinch, 3; Slate-colored Junco, 85; Cardinal, 24; Tree Sparrow, 550 (estimated); Song Sparrow, 10.

On the 28th further observations added the Red-bellied Woodpecker, 4; and the Red-headed Woodpecker, 2.

On December 29 a Great Blue Heron was seen feeding on some small fish cast up by the waves along the river shore, and several Killdeer also were seen. Other birds seen lately are: Winter Wren, Carolina Wren, Red-shouldered Hawk, Bronze Grackle, and European Starling.

Due to the formation of a large lake and many ponds along the Illinois River, caused by the obstruction known as the Starved Rock Dam, more shore and other water birds are being attracted to this section. Ducks have come by the thousands, those most common this fall being the Lesser Scaup, Blue-winged Teal, Green-winged Teal, Mallard, American Merganser, and Pintail. Coots also are common. The shore-birds most numerous were the Greater and Lesser Yellow-legs. The Pectoral Sandpipers also appeared in large numbers. Others, such as the Least, Semipalmated and Solitary were less plentiful.

In mid-summer I visited a piece of uncultivated land and found there four Upland Plover. A large flock of American Egrets stayed for a month along the Illinois River and adjoining ponds. Over 300 were estimated in this flock, which gave the game-wardens many hours of care.

October 24 was a red-letter day for me, as on that date I observed the following birds: several Double-crested Cormorants on a pond, and flying, then a Turkey Buzzard sailed over, the red head and gray underwing feathers showing conspicuously. At Starved Rock Dam I saw a lone female Wilson Phalarope in the water. It swam within five feet of me for about 15 minutes.

The most notable birds seen during the spring migration were the Cerulean and Cape May Warblers. I was standing at the top of a steep hill, when the Cerulean flew from the top of a large tree into the top of a smaller one within ten feet of me. It was watched through field-glasses for fully five minutes. Then I was surprised in seeing also another warbler, a Cape May, and both in the same field. And what a picture they made!

Random Fall and Winter Notes From Glen Ellyn, Illinois

Season 1932-33

By BENJAMIN T. GAULT

At this writing, January 19, we have wintering here one Red-headed Woodpecker, five Meadowlarks, and one Robin—birds which sometimes go farther south. We have that number and yet others also may be present. For example, one Flicker appeared at a friend's place (the Aberdeen home) December 1.

Returning from the north woods well into the Fall, the warblers and most of the smaller thrushes had preceded me, leaving but stragglers and late migrants to drop along in a lesiurely way, and those of a limited number of species; therefore I found myself largely dependent on the help of a few bird-friends, notably Harry G. Aberdeen, Don Locke, and others, in putting together these notes, such as they are.

The last Black-throated Blue Warbler, a male, was seen by myself September 30. Prior to that date another adult male was listed September 23, together with a juvenile Magnolia and a Grinnell's Water Thrush. The latter was not seen after that date, which was at the sanctuary where the writer was busily engaged.

Myrtles were largely in evidence at the Aberdeen place October 8, with a number of Palms and a few Fox Sparrows remaining for some time later.

The last Wood Thrush, true to schedule, was heard calling in the sanctuary September 30. However, the high-water mark there was reached on October 19, when a Carolina Wren gushed forth its cheery song just as the sun was going down. It came at a time when unusual quietness prevailed, and its sudden burst of song was quite startling, as not the slightest intimation had been given before that he was present. The notes seemed to come from the direction of a brush-pile, and there is a possibility of his having roosted there that night. He was not located with the aid of glasses and it was decided to let him alone, thinking he might remain a day or two longer. Evidently he decided to leave, as the song was not heard again. This wren comes to us casually and at odd times. If he nests in the county, the writer is not aware of it.

Two of my friends have derived considerable pleasure from the feeding of three Crows this winter that have come to their places regularly, and have been rather surprised at the intelligence and confiding ways shown when not molested. Most of us, however, know these universally considered scoundrels are unusually bright and make most interesting pets. Too bad that certain ones among them have given the entire tribe such

a bad name. Really, I believe their bad ways are largely individual and, after all, it seems to me we cannot get along without at least a few Crows. When the woods and fields are silent and seem deserted, he imparts a little life, as it were, by his calls.

The departure of the Wood Thrush ushered in the presence of the Hermit Thrush, though the latter did not really appear until October 6, the last one being seen on the 13th. Sapsuckers were seen and heard from September 25 to October 13. September 25 a Solitary Sandpiper, Kingfisher, Cedar Waxwings and Myrtle Warblers were recorded. A large flight of White-throated Sparrows took place October 3, and the same afternoon one was heard singing in the back yard. October 8 at the Aberdeen place they were present, together with Field, Vespers and Juncos.

Numbers of Myrtles were there also, and the same day Mr. A. had recorded a single Lincoln's Finch on his place. October 9 the writer heard a Meadowlark, two Song Sparrows and a Robin singing. November 5 several Purple Finches came to a drinking-pool near the sanctuary, several highly colored males among them. The same afternoon a butterfly was seen there, the well-known hibernating species seen on warm days in March and on similar days in late Fall. A Winter Wren was noted October 13 and on the 21st a Phoebe and Chipping Sparrow. The last Kingfisher was seen at the park lake October 31. Two Grebes were on the lake, bearing a resemblance to juvenile Horned, which drop around occasionally.

The writer's great interest this Fall seemed to have been centered on a number of shorebirds that visited the lake. Some of them had been there a good part of the Summer, as Mr. Aberdeen informed me, and he spoke of seeing one Semipalmated Plover, which rarely comes out from Lake Michigan this far. Owing to the dry Summer and the lowering of the lake, a good-sized mud-flat was formed along the west shore, and on this the water-birds congregated. There were many Yellow-legs of both species, Killdeer and several smaller Sandpipers with which he was not familiar. On my return from the north some of the waders were present. October 18 both species of Yellow-legs came to the flat, but remained one day. Killdeer and Wilson Snipe had been there from the time of my arrival, September 18. The Killdeer and Wilson Snipe fraternized on the flat from that time on until October 21, when the Killdeer left, the Snipe continuing until the 24th, when high-water apparently forced them away by submerging the flat. The Snipe never numbered more than four or five, the number changing different days.

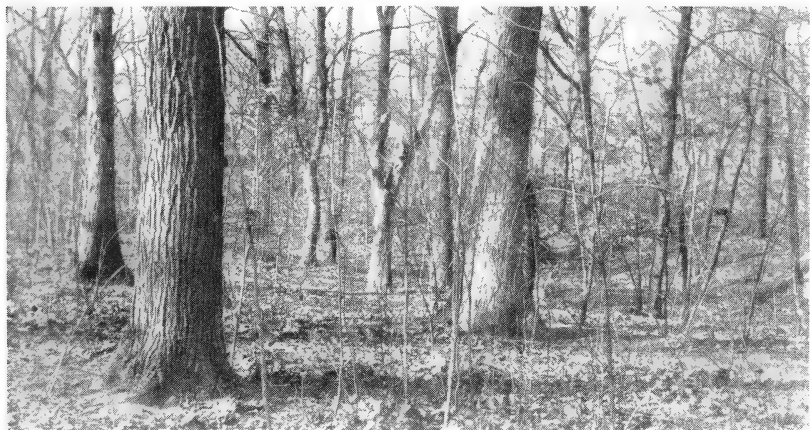
It was interesting to note how the Snipe availed themselves of protective coloration when they saw they were being watched; how they would stand quietly with bills pointing downward at an angle of 45 degrees. At times they would wade out into comparatively deep water, breast high, submerging their bills and head up to the eyes and lower,

probing, but they never seemed to have any food in their bills when raised to the surface. Not often one has the opportunity of watching the feeding habits of this bird, and as I did, through a pair of 16-power glasses. Years, too, have passed since the Wilson Snipe has come to the lake, and then only when the water was very low.

Mr. Aberdeen reported to the writer January 8 the following visitors at his place: European Starling, flock of about 40; Meadowlark, small flock of 4 or 5, never more, and no singing birds among them; Pine Siskins, 4 or 5; Tree Sparrows, 4 or 5, but sometimes to the number of 25, and that a Screech Owl had taken possession of his Flicker stump. It roosted there daily, starting on his nightly trips at just about dusk, usually looking out the entrance way for a spell before launching forth. It is in the red phase, but the gray is here in equal number.

Don Locke mentions many Jays about their place, often as many as nine in a flock, which also I have noticed at various times in that section of the village. The Chickadees, too, are more than usually plentiful, six to eight being together at a time. The Chickadee, however, nests in that locality, and very likely it happens to be a congregated family remaining together for the Winter, only to be dismembered when the Spring months come on.

Juncos have been common this Winter in scattered flocks here and there. One was singing January 7, and the day following I heard the mating-call of the White-breasted Nuthatch. Previously it was heard calling December 22, both days being quite like those of early Spring.



Photograph by Benjamin T. Gault

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THE AUDUBON ANNUAL BULLETIN



Number 24 and 25
1934—1935

PUBLISHED BY
THE ILLINOIS AUDUBON SOCIETY
The Chicago Academy of Sciences
Lincoln Park at Center Street
Chicago, Illinois

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THE ILLINOIS AUDUBON SOCIETY

for the Protection of Wild Birds

Affiliated with

The Chicago Academy of Sciences

Lincoln Park at Clark and Center Street

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THE AUDUBON ANNUAL BULLETIN

1934—1935

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ILLINOIS AUDUBON SOCIETY
FOR THE PROTECTION OF WILD BIRDS

CONTENTS

Ducks without Shooting or Shooting without Ducks.	<i>F. R. Dickinson</i>	5
American Egrets in the Lake Region.	<i>W. J. Beecher</i>	8
Thoughts of Conservation—and Afterthoughts.	<i>C. W. G. Eifrig</i>	11
Afterthoughts		12
More Objectives for Audubon Members.		13
Other State Audubon Societies.		13
In Memoriam.		14
Ruthven Deane 1851-1934.	<i>Orpheus M. Schantz</i>	14
Jesse Lowe Smith 1869-1934.	<i>Orpheus M. Schantz</i>	15
Field Days in Michigan.	<i>Edward R. Ford</i>	16
Bird Life in Northern Wisconsin.	<i>James J. Mooney</i>	22
A Letter from Chreswell J. Hunt.	<i>Benjamin T. Gault</i>	25
1934 Nature Diary.	<i>Dr. T. E. Musselman</i>	27
Martins and Martin Houses.	<i>Benjamin T. Gault</i>	31
Winter Birds Around a Feeding Station.	<i>Frank Bellrose, Jr.</i>	39
Banding Events of 1934.	<i>William I. Lyon</i>	42
A Flicker Tenement.	<i>Orpheus M. Schantz</i>	43
Three Rare Records.	<i>Esther A. Craigmile</i>	45
The 1934 Duck and Quail Season.	<i>Dr. T. E. Musselman</i>	46
The Horseshoe Lake Sanctuary.	<i>Alfred M. Bailey</i>	48
Game Birds Need Protection.	<i>Harold Ault</i>	51
Winter Notes from Williamson County.	<i>Lee Bush</i>	51
Notes from Ottawa, LaSalle County.	<i>Frank Bellrose, Jr.</i>	52
A Fall Visit to Orland Marsh.	<i>Aulden D. Coble</i>	55
1934 Notes and Records Taken Near Park Ridge.	<i>Donald Duncan</i>	56
A White-throat at Wings' Rest.	<i>Nellie J. Baroody</i>	61
Our Bird House.	<i>Violet F. Hammond</i>	62
Bird Notes from Trailside Museum.	<i>Mary Cooper Back</i>	63
Nature Study Society of Rockford.	<i>Frances S. Dobson</i>	67
My Cardinal Family.	<i>Mrs. M. T. Long</i>	68
What's In a Wren's Nest.	<i>Elizabeth MacGregor</i>	69
"Seen from My Window"	<i>H. S. R.</i>	69
Hinsdale Nature Club.		69
Barrington Bird Club.	<i>Mrs. Robert Work</i>	70
It Pays to Plant for the Birds.	<i>Mrs. C. R. Stout</i>	72
Evanston Bird Club.	<i>Mrs. Bertha Pattee</i>	72
Notes from Evanston.	<i>Mrs. Bertha Pattee</i>	74
Starling in Lake County.	<i>William I. Lyon</i>	75
Fer Billy an' Fer Me (a poem).	<i>F. W. Luening</i>	75
Christmas Census of 1934.		76



Photograph by A. M. Bailey

BLUE GEESE IN LOUISIANA

Great flocks of geese winter along the Louisiana Gulf Coast, in Vermilion Parish, where they seek refuge on the Paul J. Rainey Wild Life Sanctuary, and upon the property of Mr. E. A. McIlhenny.

THE AUDUBON BULLETIN

1934—1935

Ducks Without Shooting or Shooting Without Ducks

By F. R. DICKINSON

During the past decade any disinterested observer of wild life, familiar with existing conditions in the nesting areas of United States and Canada and with the destruction of wild fowl along the Mississippi "flyway" and the Atlantic seaboard, can hardly have failed to conclude that the extinction of several important species of ducks is at hand. Whether the prime cause of this approaching disaster is the continual drouths in Canada, the length of the open shooting season, or the abuse of baiting, may soon be an academic question; for once the number of a species has been reduced below a certain point correction of one or all of these adverse factors will come too late. Natural enemies, inbreeding, and the sheer inability to find mates, will finish the work already done by drouth and man.

The whole subject of migratory bird conservation is so filled with confused thinking, not to mention honest doubt or political consideration, that one sometimes despairs of a sane solution; yet in this day we can no longer plead ignorance after seeing the passenger pigeon and the bison disappear almost over night; and it would seem that with public interest aroused, as it certainly is, and with a fore-knowledge of what we may expect in the absence of immediate measures, a satisfactory answer can be found.

Possible means to preserve and increase the stock of migratory fowl must aim at five problems:

- (1) The increase of breeding area.
- (2) The maintenance of protected areas along migration routes.
- (3) The maintenance of protected wintering grounds.
- (4) The control or elimination of baiting.
- (5) The control or temporary elimination of open seasons.

With reference to increase of breeding areas, much will have to depend on natural conditions beyond human control. Charts recently exhibited at the annual meeting of the American Ornithologists' Union graphically reveal the startling reduction in such areas, particularly in

Canada by drouth; a situation already known to the officials of the U. S. Biological Survey through investigations of their own representatives. Acquisition of drained lands in our northern States, with a view to restoring them as breeding grounds, is now under way, and as far as it goes will help in the right direction. The fiasco at Lake Malheur, where thousands of acres of ideal breeding grounds were drained for farm land, found practically worthless, and then devastated by fire, will soon be corrected, and that great area will be restored to usefulness. Much more could probably be done along this line but for the reluctance of the Federal government to cooperate in State-owned projects, owing to the prevalence of local politics which would prevent efficient management. After the emergency program of land acquisition has been completed, it may be that some plan for Federal cooperation in State-owned bird and game refuges can be evolved.

The second item above mentioned, maintenance of protected areas along migration routes, is also receiving the attention of the Biological Survey. Suitable waters along the Mississippi flyway and elsewhere are being purchased and developed with emergency funds; and this winter considerable quantities of grain will be available for feed at strategic points where conditions demand it. These duck tourist camps will be administered by Federal wardens with whom it is not safe to tamper.

The third problem, maintenance of protected wintering grounds, where adequate feed is available, is met to some extent by refuges already in existence on the Gulf Coast, particularly in Louisiana, where many thousands of acres have been withdrawn from shooting. The Paul J. Rainey Wild Life Sanctuary, for example, owned and operated by the National Association of Audubon Societies, has done much for the preservation of our mallards, pintails, scaups, and ringnecks, and affords feeding ground for large flocks of blue geese. If some arrangement could be made by which large sections of the Gulf and south Atlantic Coasts would come under Federal control, so far as migratory wild fowl are concerned, much of the poaching now prevalent in unprotected or poorly administered districts would cease. Market hunting in these regions, as everywhere else, is perhaps the most serious of all menaces with which enforcement officers have to contend.

The control or elimination of baiting, next to the closed season, is perhaps the most controversial of all of these related questions. Members of private duck clubs will tell you that without baiting there would be no shooting worth going after. Members of the general hunting fraternity, who belong to no club, are apt to term it murder, and talk about "baiting ducks for five days and blowing them out of the water on the sixth and seventh." Here again the Biological Survey is studying the problem, and hopes, as a result of current investigations, to have soon a basis for intelligent action. Two things appear to be clear: the practice of baiting on small, artificial ponds, where shootings are leased for profit, should be con-

demned; and if it becomes evident that baiting in general results in greater total destruction of ducks than would otherwise occur, the whole practice should be prohibited, at least until the time, if that time ever comes, when our wild fowl have regained something of their former numbers. A good many observers are doubtful of the argument sometimes heard that in the absence of baiting on privately owned waters the ducks would scatter in search of food and be killed in greater numbers than under the present system. It may be true but it sounds a little like wishful thinking. With baiting forbidden there would probably also be fewer cases of exceeded bag limits, which today are by no means unknown even in the better class of duck clubs. Where the concentration of ducks makes it possible to overshoot the limit, there is an ever present temptation to drop a few extra birds and present them to the pusher or to a friend who has not reached his legal quota.

With regard to control or elimination of the open season there are almost as many opinions as there are individuals. The present plan of permitting the different States to select thirty days of shooting, arranged in one of several different ways, seems to have arisen from the dissatisfaction of State game departments at having the Biological Survey dictate as to the length and time of the season. One unfortunate result has been the selection by Illinois of fifteen successive week ends of two days each, which, though not exceeding the permitted thirty days total, is likely to cause a slaughter impossible under a season of thirty consecutive days.

Aside from the protests of duck hunters, the main objection to a closed season is based on the argument that by reducing the revenue from hunting licenses it would undermine the State game departments and practically eliminate local enforcement officers. It is claimed that in this event there would be unlimited destruction and a real danger of irreparable damage. Possibly more definite information on that question could be obtained. Most States do not depend wholly on duck hunters for their license revenue, and could supply some warden service even in a closed season. Private clubs owning thousands of acres of valuable shooting water would certainly provide some protection during a closed season if only as insurance for the future. Additional Federal wardens might well be provided out of the millions of dollars now being diverted to conservation uses. Many well informed naturalists are convinced that nothing but a closed season, followed by closely restricted shooting in future years, will prevent the reduction of our duck population, at least some species, to the vanishing point.

Broadly speaking, the final answer to all of these questions is education. The necessity for conservation has come upon us suddenly and has found the public unprepared, if not uninterested. If intelligent action may be expected during the coming generation, it will have to be founded on the knowledge of present day school children acquired through systematic instruction covering the entire subject of wild life protection. Excellent

material for visual education along these lines is available in the form of motion picture film and could be introduced into the schools of the country at relatively low cost.

American Egrets in the Lake Region

By W. J. BEECHER

It seems quite impossible for me to recall any field experiences of the past summer without recalling also the prolonged drouth that so profoundly influenced them. Even now in fancy I can see the nacreous rising of clouds on every horizon, falsely promising a rain that never came. Again I see the dazzling white of highways turning upward, ever upward to sharp contrast with the hazy blue; and the hot blast from the prairies carries on its wings the taste of dust! Rain? it could not rain!

The season is at its height: every day the extraordinary heat seems to increase, the sunlight to grow more brilliant; from Chicago comes a steady stream of resorters and cottagers, seeking the relief that only the lakes can afford. And sometimes even the lakes seem a part of the abnormal fantasy; for scanning the slough a half-mile out, one often imagines he can distinguish the immaculate figures of long-legged, long-necked tropic birds. . .

. . . Just off the southwest corner of Long Lake there is a dip in the long swell of the morainic upland,—one of those frequent small areas where the flora of the gravelly hillsides gives way to the lush, green vegetation of the slough,—a depression which in normal years is the reservoir for quite a water supply. Formerly, before the coming of the railroad, a narrow channel wended through the marsh, connecting it with the lake; perhaps it was the cutting off of this feeder by the embankment that caused the pond to dwindle to almost nothing last summer. Looking from the railroad elevation on the north, one sees a lagoon singularly lacking in the cover necessary for marsh birds. The eye encounters almost no cat-tails or tules; there is only a narrow margin of saw grass about its border. Eastward, just at the foot of the slope is a wall of osiers that formerly marked the highest reach of the water; on the western margin, where the green swell of the goat pasture rolls away from the boggy shore, a quaint white summer cottage snuggles, its back to the woods. Deep-rooted in the muddy brink lie the rotting hulks of two sun-bleached duck boats; the water has long since shrunk from these, leaving a blackened field of lily pads, fantastically curled and seared as by a glowing iron.

Just over the eastern rise appears the roof of a pretentious residence, and across the tracks within easy stone's throw a large roadhouse squats; and somehow one gets the impression that this ancient little tarn is the only place hereabouts that remains untainted by the encroachment of

Civilization. . . . But never while it maintained a normal level did the place distinguish itself as a haven for birds. . . .

Frank Amos brought the news: he had seen them from the train—fully half a hundred of the large white herons. It was six o'clock in the evening, but Long Lake was only four miles away; I wheeled out my much-abused road racer and left at once.

The seasoned old hunter was right; singly and in pairs egrets began to pass overhead as I neared my destination, all flying east. It could not be far now; I cut across a narrow field, threw the bike over a rail fence and began to follow the tracks. A few minutes later I came abreast of a small woodlot, and suddenly in the hollow beyond I saw it! There was a brief impression of the dried-up pond, scarcely a hundred yards across,—of a sea of puddles alive with killdeer and yellowlegs. But that which immediately arrested all attention was the jagged white line of egrets that graced a long flat where the last of the open water lay.

The barren insignificance of the place was at once evident and I wondered what possible inducement could bring these wary birds to assemble there. Then I understood; halfway down the embankment and all but lost in the weed growth, a rambling barbed wire fence struggled. Fences meant privacy, and privacy—in this case I thought—meant protection. Apparently this was a family affair with the egret assemblage the object of interest; there were half a dozen great blue herons and a score of night herons and bitterns loitering about on the flats,—and curiously enough the egrets held solemnly aloof from food-seeking while all the others searched diligently for whatever the pond offered. I was surprised at my inability to pick a single little blue heron out of the flock. While I was absorbed in the senatorial calm of the honored guests, a thickset little German who lived across the tracks joined me; his name, he said, was Krenschen.

We stood there while the sun sank low,—and the old fellow, waxing genial, began to recount a history of the place;—how they had fought the closing of the pond by the railroad, and how they had lost. No, he had never seen the white herons before this year,—all through August they had been using the pond, coming in greatest numbers at evening. Never in his memory had the place attracted so much outside attention. Locally it was famous only for the size of its turtles. Krenschen wanted to know where they came from,—why they were here. I told him they lived mostly in the Gulf states, and brought their families north for a kind of vacation in late summer; they were due to return soon.

From every direction now the egrets began to arrive, seemingly converging from all the lakes; thirty feet over the pond each one set his wings in exactly the same way, the black legs dropped forward, arresting progress,—and he floated easily to rest in the midst of that ever-increasing throng on the flat. Counting the outstretched necks there were seventy-four birds.

As the glowing sun drops slowly beyond the verge of the world, the long dark shadows stalk out of the woods to the westward. Slowly they

creep over the little hollow and its murky pond,—slowly up the eastern slope. Across the hollow of heaven is one mad striving of color as the deepening blue of the eastern sky begins to devour the riotous glowing of the west; and high up in the delicate blending of violet and gold, a whistling flock of blackbirds pursue their way toward some favored roost.

Twilight: my friend Krenschen has gone to town; over the pond a sudden hush has fallen. Into the brief interval the chirping of a solitary cricket drifts; a frog twangs gutturally. Then—a soft rustling of wings from the mud flat—a series of low, rasping croaks, and half the great army is in the air; another susurrations like the sighing of wind in the aspens, and the last of the egrets are a-wing. Slowly, majestically they mount over the pond . . . there is the unforgettable picture of their white figures against the deepening blue of the east—reflecting the last delicate bloom of the afterglow. They wheel, break ranks and strain away over the woods, their spectral figures beating silently into that transparent dusk. Entranced, I stand gazing after this fading vision, asking myself if what the eye sees can be true or is merely an apparition,—some spirit of the tropics come to haunt our boreal sloughs like a will-o'-the-wisp. . . .

. . . Rain? it could not rain! And yet it did,—torrentially and incessantly with the passing of August,—filling every gully and ravine, washing out crops, turning fields to lakes. I stood on the embankment again on a grey September morning; not an egret was in sight; only the wild plaintive cry of the killdeers and yellowlegs came to my ears. I found Krenschen feeding his chickens. . . .

"Where are the herons today?" I called, though I knew the worst had happened. "The herons? They are gone!"—his blue eyes were wide with the wonder of it. "I haf not seen one since the other night."

That was all. I never saw the egrets at "the pond" again though I returned many times during the ensuing days. True, I continued to see them in small groups on the lakes, and received an authentic report of a subsequent gathering on Duck Lake a mile to the south; there were seventy in that flock—it must have been the same one that used to frequent the pond. But so far as I know an egret was never seen there again.

Perhaps the sight of such a congregation of these beautiful birds is not so remarkable after all; but the swift recovery of the egrets from their near-extinction by plume hunters a few years ago—the recovery of their trust in man—is very significant. To me it means that the extermination of the Passenger Pigeon will never be quite forgotten. We know now that, for the future, we shall reap as we have sown; it is at least reassuring to know that we are striving to plant well.

Thoughts of Conservation — and Afterthoughts

By C. W. G. EIFRIG

When one looks at the efforts put forth by federal, state, and private organizations to protect the wild things, a feeling of deep disappointment, coupled with discouragement, must seize one. When one sees how agencies that have federal or state power behind them are continually thwarted and hampered, their efforts made of no avail, or how some of these officials show only too plainly that they themselves are not interested in the objectives they are paid to attain, one is inclined to become a hopeless pessimist. For if these agencies are productive of so little good, what may one expect of the more scattered attempts of private organizations, such as our Audubon Society?

If our aims and purposes were not so worthy and necessary, if the prize at stake, the continued existence and enjoyment of our great outdoors were not so valuable, yes, essential, to the coming generations, one would be inclined to say, let us give up. But we must not, we dare not do so. The more industrious the powers of iniquity are along these lines, the more persistent and well directed must be our efforts. Let the calls for help of the stricken things in nature, sent forth by that veteran leader in conservation, William Hornaday, by several of the members of the Biological Survey in Washington, by the Emergency Conservation Committee, and by the national and state Audubon Societies, rouse us again and again to renewed activity in the large or small sphere wherein we may be able to help.

The denizens of our great outdoors most threatened in their existence just now continue to be the wild ducks—notably the Redhead, the Ring-neck, and the Lesser Scaup—other waterfowl, our hawks, and some game birds, as the Prairie Chicken, the Bobwhite, even the gentle Mourning Dove. Notes of alarm have been sounded, more and more insistently, by people who are best in position to know, such as game wardens and other officials in our northwestern states and Canada, by sportsmen of the old type, who are not game butchers, both singly and by their societies, all agreeing that if something drastic and sweeping is not done at once to help our ducks and others to recuperate and somewhat come back to their former numbers, their days will soon be numbered. Last summer's terrific heat and drouth over a large part of the ducks' breeding grounds seems to have been the last straw. Instead of now eliminating the open season entirely, as conditions made it imperative, it was only reduced to thirty days. Even that would have been a little gain, had not the Biological Survey left it to the discretion of the several state commissions whether they

wanted to take thirty consecutive days or stretch them out several weeks or months. True to form our Illinois commission seized upon the chance and gleefully ordered the open season in our state to be stretched over fifteen week-ends of two days each, Saturday and Sunday. In the face of so many representations, even entreaties by experts, one must marvel whether this is plain stupidity, or malevolence, or a desire to offend the vast majority of their fellow-citizens who do no shooting whatever, or is the pressure from commercial interests, allied to politicians—politicians with shooting friends—so great that nothing worth while in game protection and conservation can be accomplished?

What is to be done? Get after them and keep on getting after them. If the shooters, game-hogs, and ammunition makers aline themselves with the politicians, so must we. Let us Lombard our state and federal representatives, our Department of Conservation, so long and often that they become either disgusted or convinced that they must do something for the non-shooting citizenry. Politicians and their appointees are impressed only by numbers, especially numbers of voters. And then let us not forget to eliminate from office such officials who show themselves incompetent, indifferent, or unwilling to the interests of conservation. The language of the ballot is the only one that some of these people understand.

Afterthoughts

Let us remind our members again of some of the goals we ought to keep in mind with a view of realizing their accomplishment.

Abolish baiting for ducks and geese. This cowardly practice wins the confidence of the ducks and geese by the generous food supplies thrown out to them for days or weeks, and gets them used to such places, only for the purpose that they may be butchered in a shockingly wholesale manner.

Abolish live decoys, for similar reasons as the preceding.

Work toward a shortening of open seasons.

Work toward lowering the bag limit.

Work for a better carrying out of such regulations.

Remove the Mourning Dove from the list of game birds to that of song birds, which are always protected. After we have allowed the fine Passenger Pigeon to be exterminated, let us not allow this gentle, ornamental, and inoffensive bird to share the same fate. Allowing the open season on them to begin on September 1st is a heartless cruelty, for the reason that at this time many of these doves still have young in the nest, which have to perish when the parents are shot. Furthermore it offers an excuse to gun-toters to walk about with fire-arms, which they want to make use of whether they see any doves or not.

Exert pressure on our Department of Conservation in Springfield to

discontinue the raising and introducing of Ring-necked Pheasants and other foreign game birds, but rather concentrate on raising and protecting our native grouse and ducks.

More Objectives for Audubon Members

Create sentiment in your neighborhood for wild life protection. (Including hawks and owls among the birds, also mammals and wild flowers.)

Feeding the birds in winter, especially in times of strenuous weather.

Help to organize bird and nature study clubs.

Combine efforts with clubs and societies having similar objects in view. (Garden, women's, and golf clubs, boy and girl scouts, chapters of the Isaac Walton League, etc.)

Work toward enactment of a cat ordinance in your town. (Cats are, after man, the worst enemies, one accounting for from 50 to 200 birds a season. For a model cat ordinance write to the Audubon Society office, national or state.)

Work toward setting aside suitable areas and parks as wild life refuges and preserves.

Work toward having farmers make their lands bird preserves, and allowing no-hunting signs to be put up on their property.

Lecture before school classes, clubs, etc.

Write articles or letters of remonstrance or information to newspapers.

In this and similar ways may an Audubon member live up to his or her name, and do something worth while for the community and our harassed wild things.

Other State Audubon Societies

No doubt most of our members are familiar from "Bird Lore" or other sources with the fact that the Audubon movement is represented in all states by state societies. Some of these are very active and highly efficient. Before us lies a copy of the "Jack-Pine Warbler," the bulletin of the Michigan Audubon Society. The "Jack-Pine Warbler" is, of course, the Kirtland's Warbler, a name to which they are more entitled than anyone else. Here is a partial list of contents, showing the range of their interests: The Hunting Instinct; How to Organize a Bird Club; Affiliated Club Memberships; Winter Feeding Contest; Suggestions for Winter Feeding; A Tribute to Character; Sanctuary; Baiting; etc.

The Indiana Society is another lively one. It has a peculiar way of keeping alive old and kindling new interest by having its annual meetings in various cities all over the state. It also publishes a bulletin of a high degree of excellence. What can we do?

C. W. G. EIFRIG.

President, Illinois Audubon Society.

In Memoriam

The year just passed brought an irreparable loss to Ornithology in the demise of two long time members of the Illinois Audubon Society.

Seldom has the death toll of a year numbered in its roster two men whose lives have exercised more far reaching influence, or who have left a greater number of appreciative friends, than Ruthven Deane and Jesse Lowe Smith.

Both were men of outstanding character and attainment, though coming from widely divergent environments and backgrounds.

Meeting through a deep, common interest in ornithology, they were close friends for many years, and individually and together exerted a remarkable influence for the better knowledge and deeper understanding of the fascinating bird life of the Chicago region.

Ruthven Deane 1851-1934

Few men of the last half century have enjoyed a wider acquaintance with ornithologists and naturalists of note, than did Ruthven Deane. For many years his office was a mecca for naturalists visiting or passing through Chicago, many of them being invited to partake of the hospitality of the Deane home. Those who were so privileged ever remembered the occasion as a rare treat.

His boyhood was spent in Cambridge, Mass., where until two years ago the Deane homestead, with its wealth of associations, was one of the historic homes in that center of culture. During his youth he was closely associated with a group of young men of like interests, most of whom in later years became famous ornithologists.

He was an active member of the American Ornithologists' Union, from the beginning of its existence in 1883, and until last year had never missed attending its meetings. While Ruthven Deane was not a professional ornithologist, he gave to the study of birds serious and highly intelligent application, and extraordinary thoroughness, qualities that characterized all of his activities.

He was a connoisseur of bookplates, of which he had a remarkable collection numbering over 8000, and by reason of his wide acquaintance his library contained hundreds of rare volumes, many of which were presentation copies by the authors. His methodical temperament and retentive memory made him a living encyclopedia of nature lore, to whom mooted questions were referred for final decision.

One of the most interesting of his avocations was the collecting of photographs of orinthologists. The collection grew until it numbered over

two thousand items, and became the final resort for information and history of ornithologists, living or deceased. Each photograph had attached to it accurate data of the original, gathered with punctilious care by Mr. Deane, the process of accumulation often requiring much correspondence and the following up of obscure clues. Long before his death, it was arranged that the Deane Collection should become the property of the Library of Congress in Washington.

Mr. Deane was the first President of the Illinois Audubon Society, an office which he held for 15 years. He was a loyal friend, a delightful raconteur, a charming host and a wise councilor. The development of Ornithology in America owes much to the assiduous and untiring labor of love given it by Ruthven Deane.

He lived a long and well rounded life, and for more than twenty-five years had been retired from active business. He is survived by Mrs. Deane and two sons.

Jesse Lowe Smith 1869-1934

Outside of the circle of his intimate friends and Highland Park, the community which he served so faithfully as superintendent of schools, Mr. Smith's influence was, because of his innate modesty, not as well known as he deserved. Only after his sudden death were his many unselfish and efficient activities brought to light. For almost a third of a century he exerted an influence in his home community that can never be adequately evaluated.

He was truly a lovable character, giving freely and unstinted of his time and abundant energy to whatsoever appealed to him as worthwhile, not only at home but elsewhere. His interests were varied and broad, his humanity sympathetic, and his willingness to do for others unlimited. He had the rare faculty of modest and farseeing leadership, that prompted him to select from among his friends and acquaintances, those who in his judgment were best adapted to take charge of such activities as he personally did not have time to guide, or thought someone else could do a better job.

His love for nature was intense, and nothing was too small or insignificant to escape his notice. Mammals, birds, insects, trees, wild flowers, and the changing seasons, all were of major interest in his life. He made a special study of the Milkweed family, and from his own photographs made a set of exquisitely colored slides depicting the marvelous beauty and intricate mechanism of milkweed flowers. At a cost of much time, money, and careful research he accumulated a wealth of material connected with the life, activities, and background of Abraham Lincoln, visiting personally most of the places in Illinois and Kentucky, wherever there were traces of Lincoln's influence.

Elm Place School in Highland Park is a fitting monument to his greatness as an educator. As a model of efficiency, refinement and perfect discipline, it was known all over the country. His ability to select capable teachers was almost uncanny. As a member of teachers' associations in Northern Illinois, he was a fearless champion of all that was worthwhile for the advancement of primary education.

Mr. Smith never married, and his mother said that as soon as he began to earn enough to be worthwhile, he told her he would always make a home for her.

His mother in her 92nd year, and a brother and two sisters survive him.

An unique and admirable man, giving to others without regard for his personal health or comfort, the best of his life, Jesse Lowe Smith will live as a dear memory to all who were privileged to be numbered among his friends.

ORPHEUS MOYER SCHANTZ

Field Days in Michigan

By EDWARD R. FORD

Since 1922, with the exception of the years 1930 to 1933, inclusive, I have spent much of spring and summer on one of the small lakes in Newaygo Co., Mich. This region is in a comparatively narrow belt of the Alleghanian faunal area which here divides the Carolinian area from the Canadian zone.

In the period named special notice has been given to breeding records, with particular regard to the probability of the occurrence of Canadian forms in the nesting season. However, although Dr. Barrows (*Birds of Michigan*, 1912) records such species as Junco, White-throated Sparrow and Hermit Thrush as having nested in Kent County, some 30 miles farther south, I have never come upon any evidence (except some very old workings of the Pileated Woodpecker) of the breeding of any Canadian species in the area here considered. On the other hand the Carolinian fauna is fairly well represented by the Cardinal, Prothonotary and Tufted Titmouse.

The territory is largely of cut-over white-pine land, now grown to scrub oak and aspen with a sprinkling of wild cherry, white birch, ironwood, service-berry, etc. There are a number of tamarack swamps and, here and there, groups of white pine which escaped the general destruction. The lumbering method then was to cut everything to facilitate getting out the logs but many were allowed to lie because of defects of some sort. Hence there is plenty of cover for ground-nesting species such as



Photograph by F. R. Dickinson

PROTHONOTARY WARBLER

Ruffed Grouse, Ovenbird and Black-and-white and Golden-winged Warblers, characteristic birds of the district. One of the neighboring lakes has harbored a pair of Loons every year, including 1934, and in most years I have been able to discover the nest or to see the downy young. On the Little Muskegon River, in the eastern part of the county, a Bald Eagle's nest was to be seen up to 1929 when too much newspaper publicity drove the birds away. They had persisted until the last of the tall white pines, in which hitherto they had nested, had fallen, and, in the final year of their appearance they used a scrub oak on the brow of the river gorge.

What has been written above will suffice to give a general idea of a region in which the following more or less significant observations were made in the season of 1934.

A great Blue Heron, standing motionless and completely exposed in shallow water and intent on securing its prey, apparently did not see me as I approached slowly along the shore. I seated myself on a log and watched it. Now it seemed to be aware of me. Slowly, almost imperceptibly, the head and neck, at first upright, began to take a lateral inclination until they were almost at right angle to the vertical. The result was the verisimilitude of a crooked branch of driftwood.

On May 23 I flushed a brood of full-grown Woodcock. The female parent, instead of taking wing with them, remained on the spot and "agonized," as it does frequently when discovered with downy young. Then, having secured my attention, it flew across the creek as the young had done.

Probably it was a late nest of the Ruffed Grouse which I found on May 18. It contained only seven eggs, whereas, by the middle of the month, here, nests hold sets of fourteen or fifteen. I should have missed it altogether but, having stopped dead, the better to observe some warblers in the tree tops, I so filled the brooding bird with fear that she "exploded" in flight. If I had passed along she would have sat close but she couldn't stand my stopping just there with the nest only three feet behind me. I had never been able to get a satisfactory view of a nesting grouse. Usually I had found the nest by chance—happening close to the sitting bird and frightening her from it. Upon returning, no matter what precaution was taken, always the bird ran off before I could detect her on the nest. Hence I resolved that now I would take more care than ever and I remained in the vicinity only a few minutes, scarcely looking at the nest. I then picked out certain "bearings" and left. Thus when I went back, ten days later, I was rewarded by being able, at a safe distance, to see the bird through my glasses as she sat quietly, but I think not unaware, on her eggs.

In a tall white pine on the lake shore, just in front of our cottage, a pair of Mourning Doves began building a nest on July 8. On July 12 a bird was seen on the nest and it was occupied until August 12 by one or the other of the parents. On that date one of the birds was seen to carry a quantity of dry grasses and weed stems to the nest and on the 27th this action was repeated. On September 8, not having seen the birds for several days and supposing the nest deserted, I prodded it gently from beneath with a long pole. A young bird flew off, gliding to a sapling just above the water. The distance of this perch from the nest, in a direct line, was perhaps 150 feet. However, two days later, the parents were feeding two young birds in the nest, where they remained until the 12th. They were last observed on the 13th, side by side in an oak where one of the parents fed them. The activities of nest-building and rearing the young (perhaps the partial rebuilding of the nest indicated an accident to the first eggs or to the nestlings) occupied 68 days.

A less fortunate outcome of a protracted nesting occurred in the case of a Red-shouldered Hawk. Hereabouts the Red-shoulder completes her clutch and begins incubation in the second week of April but I did not find the nest until the 27th of that month. Without doubt the bird had been sitting for some time. So much was indicated by her distracted behaviour upon the discovery of the nest. Nevertheless an egg, picked up a few days later on a mass of dry leaves below the nest tree, was found to be fresh. (How long it had lain there I don't know. The weather was

cold and I think it would not have spoiled in two or three weeks.) I visited the nest almost daily until June 3. The bird left it on each occasion but as the days wore on she seemed less concerned and, at the last, flew off without any show of anxiety. Days later I found, near the site and in the wood road, fragments of Red-shouldered Hawk's eggs. An examination showed that they had never contained embryos. Upon their abandonment Crows had doubtless carried them off and eaten them where I found the shells. Probably they were infertile—I never saw but one bird of the species in the neighborhood. At any rate the old bird had spent from six to eight weeks trying to hatch them.

About the end of the first week in June, in this part of Michigan, the Crested Flycatcher has begun incubation. Hence, when I saw a pair building on the 12th of that month I planned to visit the nest later to note the conditions of a delayed or, perhaps, a second nesting. Ten days later I climbed the small, dead tamarack, which was broken off at the top, and found there, not the usual mass of feathers, sticks, grasses, etc.—not even a snakeskin—but only, at the bottom of the cavity, a small mat of dry pine needles on which lay but three eggs, instead of the usual five or six.

Many of the small birds live along the lake shore and all about the cottages their nests are found. But as soon as the young leave the nest the families go back into the woods. With the Phoebe a second nesting is the rule and, soon after the first of June, when the first brood has been reared and left to its own resources, our birds at the lake return to the old nest under the eaves and use it again.

The crotch of a small white oak, close to our doorstep, was chosen by a Least Flycatcher as the site of its home. The bird was noticed first on May 16 carrying nest material. Its work seemed to be completed some days before May 25 when it was first occupied. Whether all the eggs had been laid by that time I don't know; nor do I know when the young first appeared. Whatever the date of their advent they did not venture abroad until the afternoon of June 25th or the morning of the 26th. At least 40 days elapsed from the beginning of the nest to the date of its abandonment.

Such nests as this small, inconspicuous one of the Least Flycatcher, the Phoebe's, close under the eaves, and, of course, the Orioles' and Woodpeckers', were of the few not robbed by Crows and Grackles. One day I caught a Crow in the act. I saw him "edging along" from one tree to another in the direction of a Robin's nest, in an oak on the far side of a neighboring cottage. I ran, in my sneakers, around the corner of the building just in time to see the miscreant lift an egg and bear it away, grasping it with its long diameter in a vertical position.

The Orioles know how to combat the Grackles. When one appeared near an Oriole's nest, four or five "Hangbirds" joined forces and drove the prowler away. There had always been, during my years at the lake, one or two pairs of Orioles; but during my four years' absence, the number had significantly increased. Five occupied nests were located in

an area comprising not more than 25 or 30 square rods. Some quarrelling took place among the males when mating first began. There was a deal of singing, too. One bird sang "terry-terry-territory," but with so many birds in so small an area his territory wasn't much to boast of.

Most of our lakeside Grackles, making free with the eggs of Chipping Sparrows and other small birds, are established in a grove of spruces at the west end of the lake. I was not prepared, therefore, to find the nest of one in the tall firs on the shore of an adjoining lake. I believe such a nesting site is not uncommon where a mixed colony of Redwings and Grackles is found; but here there were no other nests of either species. This nest differed from a Redwing's only in size and the condition of being unlined. It was late, May 31, for the four slightly incubated eggs it contained.

In 1929, and for three or four years before, a Chipping Sparrow's nest had occupied an identical position on the lower branch of an apple-tree. Lightly anchored, it was blown away with the leaves each fall. Now, having missed four seasons at the lake, I forgot about the matter until the several pairs of Chippies about the place began to nest. But, somehow, when I parted the leaves of the apple-tree on May 27, I quite expected the nest to be there. And so it was. The two eggs it contained were destroyed a few days later. It seemed likely that the same spot was used for a Chipping Sparrow's nest for eight or nine consecutive years. I think it unlikely that for four years, during which I was not there to see it, it was missing from the usual place.

Red-eyed Vireos are numerous in the woods back from the lake. How they can be so, *anywhere*, being so put upon by Cowbirds, it is hard to understand. It is rare, indeed, to revisit an occupied nest of this species and find it unmolested, either by a Cowbird or some other enemy. I found a new nest containing a single egg of odd appearance. It was large as a Cowbird's, rough in texture and of a bluish color. Its shape and thin walls give it a nearer resemblance to a Vireo's egg than to a Cowbird's. In any case it was abnormal. I could learn nothing further. Next day when I visited the nest again the egg was gone.

One day I heard a song altogether like the Preacher's lay but it had a strange afterpiece. I was puzzled. Finally I located the source and found that it was, indeed, a Red-eye, singing its familiar phrase and adding regularly with emphasis, "chow-chow-chow,"—uttered quickly. It remained near by for several days and sang the song often.

Since my last former visit to the lake there had been an increase in the number of Yellow-throated Vireos. In April, before the leaves were out, I noticed an old Vireo's nest some 30 feet up in a tall wild cherry. Its position, within the crown of the tree rather than near the extremity of its branches, as well as its substantial appearance, were diagnostic. The first individuals of this species arrived May 5. Soon after the middle of the month building was under way. Later I made several attempts to locate

the nest which, I was sure, was near at hand. Finally, as the male's song usually came from the vicinity of the last year's nest, it occurred to me to turn my glasses on it. It had been redecorated and it was occupied. Previously it had appeared as a dark, weathered mass. Now it was bright and new with white larvae cases and bits of paper. This was on May 29th. On June 8th one of the parents stood on the rim of the nest and sheltered the young. I think something happened to this brood as, June 20th, the birds were building a new nest in an apple-tree, placing it, as usual, within the crown. If the first brood had survived hardly could it have been a-wing much before that date and there is commonly an interval of several days after the young fly before a new nest is started. (Incidentally, on this date bits of the old nest were being carried away by Cedar Waxwings, now building near by.)

Curiously, in building the new nest, the birds first placed the outer film of web and light cottony substances. I had supposed it was added externally, by way of decoration, after completion of the essential nest. It was not until July 1 that the second nest was completed and two eggs laid. These and the nest were collected. By July 18 a third nest was occupied and by the 31st the parents were seen to attend the young in it. On August 10 one young bird, representing, I think, the season's output, was detected in a sassafras bush near the home tree. Doubtless it had not been out of the nest long. A few tufts of down still adhered to its small pate.

While the Black-and-White Warbler is quite common in the region, its nest has been difficult for me to find. I have been confident, often, that I had located the "territory" of a pair and, later, when the young hatched, have been confirmed therein. Thus on June 21, in one such area, a young Cowbird out of the nest was being attended by a female of this species. Again, July 1st, I came upon a male whose anxious chipping prompted me to look around a bit for a fledgeling. I stopped and had just thrust forward my walking stick when the female lighted upon this slanting perch and, clinging to it momentarily, manifested acute distress. I must have been close to the object of her concern but I searched in vain for it.

In a large part of its given range—at least in the Central West—the Chestnut-sided Warbler is rare as a breeding species. In this part of Michigan I had never met with it save as a transient and so when, on May 23d, I came on a male in full song, singing from two main perches near suitable nesting cover, I resolved to keep an eye on him. He sang every day in the same place until June 4. After this date I saw him no more. Perhaps he left because no mate appeared.

Though familiar enough about the cottages in winter, our Chickadees are retiring during the breeding season. Deep in the woods a favorite nesting place is a hole in the stump of one of the great white pines, felled many years ago. A small cavity is dug out of the decayed wood and when Chickadee really "bears down" the chips fly to some purpose. Generally there is some protuberance or scar on the stump which screens or disguises

the opening. Small dead aspens, too, are readily "worked." In the holes made in these, however, white-footed mice are likely to take up their quarters and it was while investigating these small mammals that, much to my chagrin, I opened a Chickadee's nest. There were two eggs in it and these had been, not merely covered, but, apparently, wrapped up in the "felt" forming the nest material.

As soon as possible I secured a weathered piece of burlap, a strip of black rubber (part of a tire tube). With these I bound up the tree; first with the rubber so as to exclude light except at the entrance hole; and then with the burlap to conceal the rubber patch from any chance investigator. Some days later I passed the tree and tapped it gently. No Chickadee. I loitered about but at length was obliged to conclude the eggs had been deserted. The next week I tapped again and out popped the proprietor. Gratification was short-lived, however. Soon afterward, happening to hear a House Wren singing in that part of the woods, I became suspicious. Twigs protruded from the Chickadee's doorway and broken Chickadee's eggs lay on the ground.

A brood of wrens, by my sufferance, later issued from that stub. I had been greatly tempted to avenge Chickadee.

THE CHICAGO ACADEMY OF SCIENCES.

Bird Life in Northern Wisconsin

By JAMES MOONEY

It was my privilege to work near Spring Lake, Langlade County, Wisconsin, during the past summer months. Spring Lake is about one mile in width and a mile and a half long, fed on either end by small streams with an outlet to one side through a sphagnum bog. The inlets of the streams are shallow and surrounded by a growth of flags and cat-tails; the rocky shorelines are framed in a dense growth of paper birch and spruce, while farther back, on the rolling hills, is a growth of hardwood; to the south is a sphagnum meadow and like a jewel in the center is a clear, round, embryo lake.

My first observations were immediately upon my arrival, for over my head on the covered pier was a Barn Swallow's nest. In a dead poplar, not ten feet from the swallow's nest was a Starling peering from its nesting cavity, squeaking and making its presence known as only these warriors can. Robins, Swallows, Purple Martins, Red-wings, Crows, Killdeer, Scarlet Tanagers, Baltimore Orioles, Great Blue Herons, an American Bittern, an Osprey, Sparrow Hawks, Vesper Sparrows, and Kingfishers were all busy along the lake shore, some feeding and others carrying mud to their nests or just resting after a meal.

Leaving dry and dusty Illinois and coming to such a clean spot seemed

like entering a new world. Here was a land filled with the resounding calls of many birds. As I paddled my canoe across the lake, a pair of Loons came swinging overhead, then a pair of Mallards, and, on arriving on the opposite shore, I soon found the nests of six Robins and a Grackle's nest high on the water tower. This was the site of the North Shore Area Boy Scout Camp; my summer was to be spent as nature director so I could look forward to the next two months.

The following day found me rambling along the lake and through the spruce in search of whatever I could find. I watched a pair of Osprey fishing; then they would fly to their nest in the maple grove, feed the young and return for another fish. Soon I found three Red-winged Blackbird nests and banded the young. As I was cruising along I spotted a muskrat swimming in the cat-tails; I disturbed its easy and playful swim and it crashed into a heavy growth where a Coot put up an alarmed series of calls. Its nest was located and also one of a Bittern.

The lake has one small bay covered with wild rice and pond lilies. As I rounded the point to enter this nook, I was pleased when I saw a loon in the thickly fringed shore grass; it immediately left and my investigation proved fruitful for I found one egg.

In the late afternoon I walked along the shore and saw a large pine snake crossing my path and a short distance away I discovered the nest and four eggs of a Brown Thrasher. The eggs hatched on June 29 and the young left the nest on July 11.

During the last week of June, I found a Least Flycatcher's nest high in the birch with three eggs in it, twelve Robins' nests with from three eggs to four feathered young. The 1st of July I roamed about the heavy timber back of the camp and found the nest of a Northern Pileated Woodpecker high in a maple. I could not get the count of eggs, but later in the season heard young in the cavity.

A Ruffed Grouse and six eggs were located July 23. This bird had its nest under a fallen spruce; when I came upon the nest, the female flew up to a limb on this dead tree and with beating wings, scolded fiercely. Watching this bird stamp her feet and thump her wings was a most unusual experience for me as I had always pictured them as wary. I walked to within six feet of this grouse. On July 7 I flushed a family of grouse, nine young and the female.

Slate-colored Juncos were common on the sanded hillsides near an open pasture about one-quarter of a mile from the camp. I did not find a nest but on July 13 I saw an albino.

On July 14, a Towhee's nest was found containing three Towhee eggs and seven Cowbird eggs. On the 16th, six of the eggs hatched three Towhees and three Cowbirds; the remaining were pushed from the nest by the bird; on breaking them I found the embryos seemingly in good condition. Mrs. Towhee must have thought her family was large enough.

Numerous Song Sparrow nests were found in the sphagnum bog, and

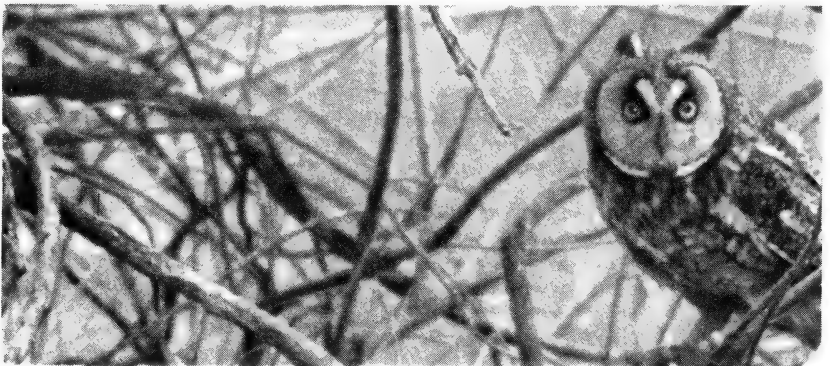
also two Swamp Sparrow nests, one on July 13, four eggs, and one the 14th with three eggs. An Indigo Bunting nest containing two eggs was found in a blackberry clump July 17.

A Tree Sparrow had its nest and two eggs in a bird house located near the camp grounds and when anyone would come near, the bird would extend her head and keep a watchful eye until all seemed safe. Two Killdeer nests were located near a farm house three miles from the lake, one on July 20 and the other on July 22. Mourning Doves were abundant, one nest with two young was found in a low birch in an open pasture a mile from the lake on July 22. Short-billed Marsh Wrens nested near the sphagnum bog; three nests were found, one July 25 (three eggs), one July 26 (two eggs), and the last July 29 (three young and one egg). A Red-headed Woodpecker's nest was found on July 29 with three young, and on July 30 a Flicker's nest was found containing three eggs.

An unusual find was that of the nest of a lone pair of Ospreys on July 30 in a very remote wooded spot about one mile south of the lake. It contained three young birds.

House Wrens were everywhere about the camp grounds; a total of six nests were located on three succeeding days. The little fellows built a nest in most every nook and corner. I remember a certain morning when one of the boys came to my tent with his shirt on and carefully carrying his pants before him. This was his clean pair and he had fallen prey to a Wren. I had always told the boys not to disturb the nest of any bird under any circumstances. This boy had had his pants hung out on a line and a Wren had filled one leg with sticks and layed an egg! On another occasion the Wrens built a nest in a pair of high top boots.

Over one hundred species of birds observed, and nests of twenty-eight species found, was my reward for the pleasant time spent on a little known lake in the Badger State.



LONG-EARED OWL

Photograph by A. M. Bailey



Photograph by A. M. Baily

"THIS IS A GREAT COUNTRY FOR KILLDEER"

A Letter from Chreswell J. Hunt

Chreswell J. Hunt, a director of the Illinois Audubon Society and various other organizations devoted to the study of birds, passed from among his friends, due to a lingering illness from which he had undertaken to recuperate while on a farm near Elkhorn, Wis., October 18, 1933.

The following letter is published as an excellent example illustrating the zeal in which he studied birds, though at the time suffering from the ailment which but a few weeks later took his life.

BENJAMIN T. GAULT.

c/o John Kulow, Route No. 5,
Elkhorn, Wisconsin.

Dear Gault:—

Was very glad to receive your letter of July 26th. I had given that Chicago Sanatorium my address here and don't see why they could not have supplied you with it. No, Ford has not visited me here and I would have known of it had he called. But then this is not the easiest place to find, as you see the Kulow farm, where I am located, is seven miles from Elkhorn. In fact, we are just about midway between Elkhorn and East Troy—seven miles to either town. You leave Elkhorn on Highway No. 12, then changing to Highway No. 14, and this farm is on a side-road about a half mile north of Highway No. 14. I'm telling you this in case any of the Boys should ask you about it.

The Kulows have 120 acres here, 40 of which are excellent woodland. It is a fine country, but I failed to see lots of migrants this spring that one would expect to find here.

You see I have been here since March 10th and, all told, I have a list of only 75 species.

Some things are surprising: not a Red-eyed Vireo have I seen and I only saw two Wood Thrushes on April 30th and none since.

In other words, the Wood Thrush and Red-eyed Vireo do not seem to be summer resident species. The Warbling Vireo is the only one of the family I have been able to find here.

There is a Tamarack bog near by where there is a small Great Blue Heron herony and I have made the acquaintance of the Hungarian Partridge—this species is plentiful in this locality. I recently had a female pulling off the old "broken-wing" stunt at my feet, trying to draw my attention from seven of the prettiest downy chicks that I ever saw.

This is a great country for Killdeers, Bobolinks, Catbirds, Brown Thrashers, Indigobirds, Martins and Barn Swallows, the latter having a wonderful nest in the chicken-house and they have given me no end of amusement. House Wrens, Flickers, Red-heads, Meadowlarks, etc., are here and there are many Red-tailed Hawks.

I have been giving the folks a little help in the harvesting of their barley and oats crop. I do enjoy working in the fields to the accompaniment of the songs of the Vesper and Field Sparrows, etc.

Yes, I feel better than when I came up here. You see my trouble is the same old thing—hardening of the arteries—and my blood-pressure is still low and some days am not good for much; but I have not had one of those fainting spells since December, so perhaps there is still some hope. You see when I went in that Chicago Hospital, I was just dropping without any cause or warning; I was liable to go out and drop right in front of the traffic, and so was not permitted to go out alone.

I always had to have a nurse or somebody trailing along with me. When I first came up here it was surely a relief to be able to go out at any time without being followed.

From its location on the map I'd think Kalkaska County (Mich.) would be very good bird-country.

On Sunday the Kulows took me in to Milwaukee—a 40 mile drive. They visited some friends but we spent all afternoon in Washington Park and went through the Zoo—my first visit. They have some interesting animals there. Last June I spent two days at the Fair in Chicago.

I was surely glad to get your letter, and do write again when you have the time and convenience.

Sincerely yours,

CHRESWELL J. HUNT.



1934 Nature Diary

By DR. T. E. MUSSELMAN

January 6—Continued warm weather gave me a list of thirty-one birds on my first 1934 trip. All the regular winter visitors were recorded with additions of a Red-breasted Nuthatch, Wilson's Snipe, a flock of thirty Bluebirds, a Carolina Wren, two Bald Eagles, and a Northern Pileated Woodpecker.

January 7—Cardinals and Titmice awakened me today singing their spring songs.

January 19—Saw additional Bluebirds and three Pileated Woodpeckers and a stray Red-headed Woodpecker today. Watercress is temptingly green and crisp.

January 20—Covered my cycle of twenty-four Bluebird boxes, put new tops on several and painted all in readiness for an early return of birds. Likewise I have forty-six additional boxes to be placed.

January 22—First flocks of Canada Geese flew over. Several farmers report Doves wintering about their feeding troughs. Likewise one Mockingbird has wintered at the feeding tray of Mrs. Klarner at 30th and State Road.

February 5—Mallards, Pintail, and Golden-eyes common. Saw another mature Bald Eagle.

February 10—Sap is flowing from the maple trees, and honey bees are drinking their fill of this laxative. Saw three Barrow's Golden-eyes. Small flight of Evening Grosbeaks reported. A few Redpolls tugging at the Sycamore seed balls.

February 11—Saw my first Migrant Shrike. Ducks are concentrated in numbers. First Robin eating berries of a deciduous holly tree.

February 25—Heavy snow. Quail suffering. I went to several farms and cleaned snow and scattered corn on sites which the Quail had been using.

February 27—Hundreds of Horned Larks and some Lapland Longspurs are feeding along the state hard roads where the scrapers had dug the ground. Many coveys of Quail have taken to the hard roads where an abundance of soy beans have been scattered by farm trucks.

March 1—A Great Horned Owl's nest with three eggs nearly incubated was found in St. Anthony Grove.

March 4—Mild weather. The south wind brought in many birds. Flickers are singing and dancing. Bluebirds and Robins are here in large numbers. Killdeer are running in the muddy pastures, and their plaintive, "Kill-dee-dee," can be heard through the moist night air. Ladybugs and Grasshoppers are out. First thunder and lightning. Redwings are flying over in flocks.

March 6—First Robins singing.



Photograph by A. M. Bailey

RED-SHOULDERED HAWK

March 7—Light snow. Saw fifteen hundred Starlings in one pasture.

March 8—First Meadowlark singing.

March 9—Mourning Doves are here and singing.

March 10—Big increases in Meadowlarks and Robins.

March 11—Plenty of Rusty Blackbirds here.

March 13—Maples in bloom. Pussywillows bursting. Today is a flock day with groups of Redwings, Grackles, Cowbirds, and Robins. First Colias Butterflies. First White Pelicans.

March 15—Hundreds of Herring Gulls and a few Ring-billed Gulls are walking about the river bars hunting for fish. Crows likewise add variety to the birds eating dead shad and carp.

March 16—Ground-hogs are digging out of the rocky hills. *Peziza coccinea* grow like scarlet cups on the decaying ground logs.

March 17—Great Blue Herons are here.

March 18—Hermit Thrushes are skulking in the brush. Hundreds of ducks have concentrated on the river, including Shovellers, Green-winged Teal, with a Blue Goose to add color to the medley.

March 19—First Fox Sparrows appeared with a corresponding increase in Grackles.

March 21—Huge flocks of Cowbirds are passing over. The first Bewick's Wrens are singing, Cricket Frogs are chirping in the creeks.

March 24—Greater Yellow-legs are wading in the swamps.

March 28—Mudhens are sunning themselves on the Muskrat dens which show signs of repair. First scouts from the army of Martins are hunting eligible homes.

March 29—Chewinks are scratching leaves and calling their metallic notes. Spring odors fill the air.

March 30—Golden-crowned Kinglets are hunting insects in the tree buds.

March 31—Elm trees are in full bloom with myriads of Cedar Waxwings eating this abundant food. Field, Chipping, and Clay-colored Sparrows, and Belted Kingfishers dropped in over night. Found my first completed Bluebird's nest.

April 2—White-throated Sparrows dodging about in the weed patches. Reptiles are out. A Box Turtle, Racers, and Pilot Blacksnakes surprised my morning trip, while toads were commonly hopping across the road. Heard my first Thrasher singing. First brood of young Flying Squirrels here.

April 3—Big flight of Red-tailed Hawks. Hosts of flying gnats soiled the travellers' windshields.

April 4—First Pieris Butterflies hunting flowers. Wasps are crawling out of hibernation along the river bluffs. Pussywillows are yellow with pollen. Snow Trillium and Hepaticas are in full bloom. Bloodroot is out of the ground. Tree toads are calling from the water.

April 5—Bloodroot is in full bloom. Yellow Cordalis is particularly luxuriant this season.

April 6—Ruby-crowned Kinglets are numerous, singing. Upland Cress, Crowsfoot, and Dutchman's Breeches in full bloom. First wood ferns are up. A flight of Golden-crowned Kinglets filled the trees with inquisitive bird life. Spotted Pearis (*P. protodice*), Red Admirals, and Mourning Cloaks are flying while Bank Swallows are pushing the winter's accumulation of debris from last year's dugouts.

April 7—Hosts of Chewinks came in. The males are in the tree tops singing. The females are scratching last year's leaves. The huge red mushroom, *Gyromitra esculenta*, are fine in size and flavor.

April 8—Saw the first Arctic Three-toed Woodpecker ever reported

from Adams County. Saw fifty-six varieties of birds today. Pied-billed Grebes, Phoebe, and Swamp Sparrows were new. Box Elders and Cottonwoods in full bloom.

April 9—First Swifts.

April 10—Forsythia, Shadbush and White Violets in bloom. Least Sandpipers probing the muddy banks of the streams. Saw several Semipalmated Plovers.

April 15—First bats. Other first arrivals:—Savannah Sparrows, Semipalmated Sandpiper, Myrtle Warbler, Lesser Yellow-legs, Pectoral and Solitary Sandpipers, and Blue-gray Gnatcatcher. My list today totaled fifty-two varieties with Red-headed Woodpeckers here in quantities. Shepherds' Purse in bloom, Christmas Ferns uncurling their fuzzy fronds. Last Sunday, the eighth, I put up a Bluebird box. Today the nest was complete with three blue eggs. Quick work.

April 16—First Bartramian Sandpiper and Whip-poor-wills.

April 17—Redbud trees particularly fine. Kiefer Pears breaking into bloom. Flocks of Lesser Yellow-legs common.

April 18—Barn Swallows here. Enjoyed my first mess of Inky Cap Mushrooms. Water Thrushes singing and tipping along the creeks. The Bluebird which laid white eggs in box 13 last year has completed a clutch of five creamy white eggs in box 27 this year.

April 19—Robins building. Wild Plums in bloom. Enjoyed my first mess of Asparagus. Sweet Williams in bloom.

April 20—Dogtooth Violets, Wake Robins, Cherries, and Peaches blooming. Night air fragrant with lovely odors.

April 21—Male House Wrens here. Adders Tongue in full bloom.

April 22—Common Terns hunting water larvae at end of river dikes. Coots abundant. First Morel Mushrooms. Little blue butterflies, Turnis and Asterias Swallow-tails, and Dragon Flies numerous. Vesper Sparrows are migrating through. Saw and studied what I consider the only Greater Scaup Duck that has ever come to my attention at this location.

April 24—First Traill's Flycatcher.

April 25—Persimmons in bloom. Cliff Swallows here.

April 26—Saw last Junco. White-throated Sparrows and Grasshopper Sparrows singing.

April 27—Saw a pair of Legless Lizards (Glass Snakes). First Lark Sparrows and Dickcissels. Chickadees carrying Red Fox Squirrel hair into box No. 7 for nesting material. Titmice using mouse hair in box No. 17.

April 29—Plenty of Scaups and some Blue-winged Teals here. First Baltimore Orioles. Apple and Dogwood trees in full bloom. Wild Ginger in bloom. While driving I paralleled the flight of a Red-headed Woodpecker going at twenty-five miles an hour.

May 1—Rose-breasted Grosbeaks arrived (a week late) also Warbling Vireos, Catbirds, Indigo Buntings, and Yellow-headed Blackbirds. Chick-

weed Phlox in bloom. Mustard, Buttercups and Dandelions add a touch of color to the roadsides.

May 2—Kingbirds, Wood Thrush, Crested Flycatchers, Yellowthroats, and Nighthawks here. Saw two rare stragglers today in an apple orchard: Lincoln's and also Bachman's Sparrows.

May 3—Palm Warblers, Bobolinks, and Spotted Sandpipers arrived last night. Tiny white Veronica, Yellow Papoon, Hawthorns and Crabs in full bloom.

May 5—Big wave of birds. Red-eyed Vireos, Redstarts, Orchard Orioles, Nashville Warblers, Magnolia, Black-throated Green Warblers, and Philadelphia Vireos all arrive. Pawpaw and Wild Cherry in full bloom.

May 6—Scarlet Tanager common, Black and White and Prothonotary Warblers, Chats, Hummingbirds, and Wood Pewees here. White-crowned Sparrows are singing in the bushy pastures. Lark Sparrows greeted the Harris Sparrows, rare visitors from the west. I saw a belated Yellow-bellied Sapsucker which couldn't leave his convivial surroundings. Banded fifty baby Bluebirds, ready to fly. Giant Bullfrogs out and singing their "Your Drunk" to their ladies fair who are hidden in the high grass.

May 7—Palm Warblers are singing their "chippy" song in the elms over head. Giant White Trilliums in bloom. First Luna Moths flying. Woodticks are out looking for meat. Yellow Moccasin Flowers in bloom. Young Robins ready to fly.

May 9—Bracted Wild Indigo in bloom. Bell's Vireo back and building in low bushes. Black Locust trees in bloom, filling the air with their pungent aroma.

May 10—Penstamen blooming on the sandy roadside. Gallinules here. Laughing Gulls here following the farmers as they plow. First Fireflies.

May 12—Cecropia Moths are flying. Baby Black-capped Chickadees are out of eggs.

May 14—White Clover in bloom. Big bird movement. Cuckoos and many Ovenbirds here. White-throats still present. Indian Hemp, Wood Anemone, and Wild Grape in bloom. The last has the finest odor of any spring blossom.

May 16—Bluebird box No. 53 has no cover. Results—four Bluebird eggs and three Cowbird eggs. Only on one occasion have I found a Cowbird egg in my boxes. They fear to enter through the side entrance hole. A few Seventeen-year Locusts are singing—small crop this year, however.

May 17—Barn Swallows building. Birds hatching in Mockingbird's nests. Upland Plover have full complements of eggs. They prefer to nest on the crests of hills. Glad to report them on the increase. Summer Tanagers here. Found Swifts nesting in a hollow tree. Wild Strawberries are ripe. Honey Locust and Blue Star Grass in bloom. Squirrel-tail Grass is at its best.

May 20—Red Clover very fine and fragrant. Winged Dock (*Rumex venosus*)—a stray from the west—is in beautiful bloom.

May 23—Catalpas in bloom.

May 24—Swamp Burr Weed blooming.

May 25—Bloodroot seeds are being carried by ants.

May 26—Wild Pansies in bloom.

May 27—Poison Ivy blooming.

May 28—Field Wild Roses pink with blossom.

May 30—Camomile, Venus Mirror, Corn Cockle, and English Plantain blooming.

June 4—Elderberries white with flower.

June 8—Moth Mullein and Trumpet-vine blooming.

June 9—First Black-eyed Susans. Banded thirty-five young Great Blue Heron. Studied fish regurgitated by young herons. They were largely Hickory Shad, a few Carp, several Sunfish, one Cat, and one Bass. Ninety-five per cent of the food was rough fish or Crawfish. Small fish are regurgitated by parents. An occasional large fish is carried in their beaks. Butterfly Weed in bloom.

June 12—First Cicadas.

June 17—Vervain blooming.

June 18—Found a second set of white eggs in Bluebird box No. 27 from the same banded mother.

June 19—Chestnut trees in bloom.

June 21—Leadweed, Prairie Dock and Burning Poker in bloom.

June 22—Young Sparrow Hawks and Nighthawks out of nests.

June 23—Jimson Weed and Bergamot blooming. Oswega Tea, Cone Flowers, and Cow Vetch in bloom.

June 26—Diggers Wasps building their tunnels. Cicadas (their victims) are singing.

Month of July—Too hot to record. Young Quail died from lack of water. Everything seared brown. Bluebirds' eggs deserted in the nest. Eggs cooked.

August 18—Slightly cooler. First fall rain. Fiddler Catfish biting. Fine growth of *Campestris* Mushrooms—many fairy rings. Puffballs numerous and fine.

August 24—Eels biting. River alive with White Herons, Little Blues and an occasional Egret. *Coprinus* Mushrooms around every stump.

August 25—Least and Caspian Terns here.

August 31—Snakeroot, Bindweed, Jimson Weed, and Whorled Milkweed are all blooming white. The grass leaved Golden Rod added yellow to the roadside. Partridge Peas appear richer with spots of orange. False Wild Dragon Head showed pink while dainty clusters of Culver's Speedwell added dainty color and gentle odor to the air.

September 2—Had a hard rain with myriads of night crawlers coming up from the hard earth for a spree in the dripping grass. Catfish are biting.

My ten year old daughter, Ginger, caught a 10½ pound Channel Cat. Least and Black Terns very abundant. Likewise, the waders, Great Blue Herons and American Bitterns are stalking Crawdaddies in the drainage ditches.

September 5—First Persimmons are ripe.

September 11—Brown Thrashers have all departed.

September 16—Yellow-woods heavy with seed.

September 20—Great flocks of Grackles, some Doves, Catbirds, Grosbeaks, and Nighthawks are still here.

September 21—Jack Snipe are zigzagging over head. Cobwebs are floating.

September 24—Big Warbler migration.

September 27—Great hawk migration. Hundreds passed over in irregular formation. Flight extended from Quincy to Mt. Sterling.

September 28—There are no Hickory nuts.

September 29—Black Walnuts, Chestnuts, and Butternuts are down. Shaggy Mane is plentiful. Stinkhorns are growing on fallen logs. White-throats and Tree Sparrows here. Chewinks still here. Little White Asters are gorgeous.

October 1—Checkered Skipper Butterflies (*H. montivaga*) are out and merry.

October 3—A new Stinkhorn appeared—possessed a red stem.

October 4—Swifts nearly all gone.

October 5—Juncos, White-throats and Tree Sparrows here in large numbers. Catbirds still here.

October 6—Picked a fine mess of *Pluteus cervinus* which I broiled—tender, tasty.

October 8—Hard maples brilliant. Robins are eating the Dogwood berries. Big V's of Cormorants passing over.

October 10—Preying Mantis plentiful.

October 13—Thousands of Crows have gathered over Bay Island.

October 14—Blue-wings, Green-wings, Pintails, and Mallards appear in the hunters' game bags but all complain of small kills. Chimney Swifts all gone.

October 15—Many Buckeye Butterflies.

October 19—Robins flocking and gathering in the lowlands where they feed on deciduous Holly berries. New flight of ducks and geese.

October 20—Wasps hunting winter hibernating quarters.

October 21—Ruby-crowned Kinglets, Dwarf Yellow Butterflies (*N. iole*) and Big Clouded Sulfurs (*C. eubule*) are common.

October 23—Foliage at its best color.

November 3—Scattered flocks of Smith's Longspurs passing through.

November 12—Golden-eye Ducks here.

November 15—Deciduous Holly red with berries.

December 1—Titmice singing. Quail and Ducks very scarce. Weed seed for birds scarce. Pileated Woodpeckers more numerous than for several years.

Martins & Martin Houses

By BENJAMIN T. GAULT

Owing to the many unfavorable reports coming to us of Martin scarcity in various parts of the country, the mortality existing among them as shown in the number of young birds found dead in the boxes, as well as the quantity of young birds unable to fly that have forced their way out of the chambers and fallen helplessly to the ground, being abandoned by their parents and left to die, the writer has been asked to contribute this article, illustrated in part with plans and specifications that have been submitted herewith.

These notes and observations are based on a twenty-five-years experience of successful Martin-housing here at my home in Glen Ellyn, Ill. Expressing it concretely, it is the writer's belief that this great waste of bird-life, due largely to ignorance, entirely unnecessary, has been brought about by *excessive heat*. Especially true has this been during the two past seasons of 1933-34 when summer temperatures rose to unusual heights.

Many years ago the writer arrived at the conviction that *all* properly constructed Martin-houses *should be ventilated*, an idea that was put into execution at the start and it brought about excellent results; for, during those long years of experience, he has yet to recall an instance where a Martin was lost from heat cause alone.

On the other hand, there are those who think and argue differently (for material advantages possibly, though it is hoped not); but of those I would frankly ask this one question: would you subject yourselves or your families to the same treatment that has been accorded the birds? I think not.

As an illustration, let one test this matter out in his or her own home and I believe it will be readily seen what a cooling effect it has upon the chambers below to throw wide open the attic-windows and allow a free circulation of air from without.

My friend, Harry G. Aberdeen, of Glen Ellyn, informs me that "every year" he found dead Martins, young and helpless birds, on the lawn of his own and those of his neighbors who had Martin-houses. So this past summer he made several thermometer tests with a Bluebird box on his premises, from which much earlier in the season the Bluebirds had successfully raised their young. The thermometer in the shade on his own house stood at 110—an unusual temperature it must be admitted for our locality. Placing the thermometer in the Blue-bird box, and on the *shady side*, he found that

it marked 105. What it would have been on the sunny side, where at the time thermometers were ranging as high as 130 and over, we can only conjecture! Therefore, taking these as examples to work by, can it reasonably be expected that young Martins in the nest can submit to such temperatures and live? And, furthermore, isn't it a barbarous proceeding on our part to expect them to do it? And, again, can the average Martin House, many of which have been made of one-half inch material, be looked upon as nothing short of being a *death-trap*?

Occasionally the Martins themselves will show good judgment in selecting a nest location, as the writer once observed in Texas where a pair had built their nest on the top of a gallery-column, with a free circulation of air about them. There they were successfully raising a brood.

The principal reason why young Martins are so frequently the victims of such severe climatic conditions is that they mature so late in the season, sometimes not until the very last days of our hottest month, July. There are times, too, when even the first days of August will see them clinging tenaciously to their nests, while their companions are calling to them eagerly and excitedly from the outside and showing their anxiety for them to join the group. Indeed, it is a most interesting spectacle to witness, when they do muster sufficient courage to do it, all hands taking hold and helping them to launch out. Their wing-power, it should be explained, does not develop until quite late. Another factor also enters; young Martins before leaving the nest require a certain amount of topping-out food that their wings may become sufficiently strengthened. This consists of the larger insects, such as a variety of butterflies, often the large Monarch Butterfly, and dragon-flies also. They appear to be particularly fond of that species known to entomologists as the Kingly Dragon-fly (*Anax junius*), which the old birds will travel over miles of territory to secure.

It is well known that when young Martins forcibly eject themselves from nest and chamber, tumbling helplessly to the ground, that, after a few futile attempts on the part of the old birds to encourage them to rise and join them, they leave the young to die. In this respect Martins show far less regard for their young than the House Sparrow.

However, should the young after leaving the box, from lack of strength alight on low bushes and shrubbery, the adults will feed them, and care for them until they are sufficiently strengthened to join the flock. And even if the helpless young are returned by hand to the box it is a question whether they will remain there long, a habit quite characteristic of most birds after having once left their parental abode. However, on rare occasions, the Martins have been known to remain and be successfully reared.

But the writer regards it as something of a gamble. Such then is a part of the early life-history of these most interesting birds.

With reference to house-plans, they perhaps may speak for themselves. Figures giving dimensions of the different parts are given, so that if

anyone should wish to construct similar houses they should find no difficulty in doing so.

The lumber should be kiln-dried and about seven-eighths of an inch in thickness. All parts should be primed thoroughly before being put together, to lessen the possibility of warping or shrinking, and when the house has been built it should be thoroughly primed before being painted, with some light-colored paint of a good quality to lessen heat-absorption. The chambers of the house shown here were thoroughly shellacked on the inside, as an aid in cleaning.

The sides of the house were hinged, as will be seen in the plate, a 5 or 6 inch "T" hinge, being used for that purpose.

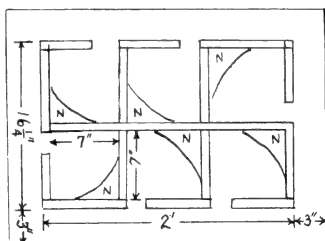
The latter is preferred as it serves to brace the door, preventing its warping. These should be hung to the permanent strip just below the eave where the roof-board comes down to the side. When these large side doors are not being opened they are held in place by four round-headed brass screws one and three-eighths inch in length running through a brass washer on the outside on which the head rests when firmly tightened down. Brass is recommended to avoid rust.

Here are several suggestions it might be well to adopt:

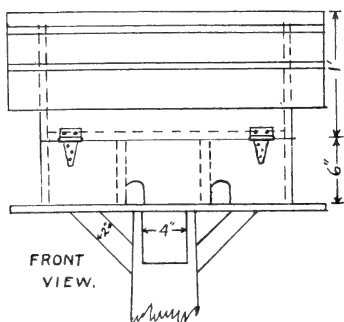
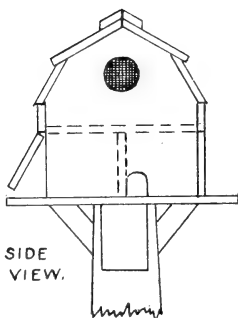
(1) In setting up the house always select an open situation some distance from trees or obstructions of any sort as Martins always like ample wing-space in which to turn around. The writer's houses were elevated on stout cedar posts 6 to 7 inches in diameter and from 13 to 15 feet above the ground. The posts were sunk fully 4 feet in the ground in order to secure firmness as well as to lessen vibration during times of high wind. I do not favor the hinged-pole as I consider it of no great use except during the fall when cleaning operations take place after the season is through and, even then, they are cumbersome and awkward to handle. My preference is the 12 or 14 foot ladder with which to conduct all such operations. (2) The broad sides of the house should be facing east and west in order to avoid the direct and scorching rays of sun upon the sloping sides of roof, thus securing a more even temperature in the large roomy (10 in. x 15 in.) attic.

The large hinged side door will be found a great convenience in cleaning out the chambers at the close of season. My houses were thoroughly brushed on the inside and carefully sponged with tepid water and soap, and it was wonderful the amount of insect-vermin that were disclosed at such times. My bare arms were thickly studded with fleas—at least I took them as such—though they never showed any disposition to bite; they appeared to be torpid and perhaps had gone into the hibernating state for the winter. How they came there was a question. I always felt that stray animals, such as dogs and cats, may have accounted for their presence. They were packed in mass-formation beneath the soiled and matted nest-material.

Aside from being a great convenience in renovating the boxes, these doors will be found useful in ridding the houses of those perennial nuisances,



FLOOR PLAN.

MARTIN
HOUSE.FRONT
VIEW.SIDE
VIEW.

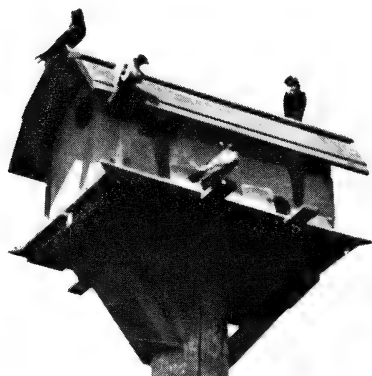
PLANS FOR MARTIN HOUSE

House Sparrow nests. The doors will also be found very useful in making observations of various kinds, which the Martins readily become accustomed to, providing such observations are not made too often, or too prolonged.

Among other interesting things, the writer found that the eggs were laid on a bed of small leaves and bits of *green* leaves freshly taken from trees after the main body of nest had been completed. P. A. Taverner has also noticed this habit (*Auk*, p. 110, 1933); this was done undoubtedly to add moisture or a cooling effect. Sometimes these were added after all the eggs had been laid. On our place the nests were made of material gathered on the premises, dry grass and small pieces of asparagus stalks.

The birds showed a special fondness for the terminal leaves of a Flemish Beauty Pear, while the leaves of a Bartlett Pear, but a short distance away, were scarcely touched. In the case of the former the effect of denuding operations could be seen some distance away.

With reference to the chambers, attention is called that the entrance-way should be placed at the extreme left-hand corner of the chamber. This is done to avoid all possibility of a direct draught striking the nest and contents—the sitting bird, eggs and later the young. That feature is *very* important for from the first it was recognized by the birds, for they never built their nests in any other place than the diagonally opposite corner of the chamber (see Plate).



Photograph by Benj. T. Gault

THE HOUSE THAT GAULT BUILT

The doors or entrance holes into the chambers should not be made too large. They should be about one and three-quarters of an inch, both in width and height, the top rounded and the edges all the way round rasped in order to remove square edges. Martins like to have the entrance-ways fit their bodies fairly snug as they serve to keep out large intruders.

In the centre of each chamber ceiling a hole of about one inch diameter for ventilation was bored, leading into the attic above. These with the three inch circular openings at both gable-ends of the house complete the scheme of ventilation. The latter should be covered on the inside with a good grade of galvanized wire netting of one-half inch mesh. (See Plate.)

In my houses another small outside door was used to cover each chamber entrance when not in use by the birds. They can be made either of one-half inch wood or galvanized sheeting. The latter are preferred, on account of warping, and look much better if painted the color of the building. They are attached by small brass round-headed screws.

In remarking again on the pestiferous House Sparrows, the best way I found to cope with them was to permit two or three broods to hatch; then after a few days destroy both nest and young, which sometimes has a discouraging effect on the old birds.

In conclusion, during all the years our Martin colony was in full swing, barring some off seasons, our apple orchard yielded excellent fruit; but, after the colony had been discontinued there was quite a different story to tell.

In our case we found our Martins to be most valuable, in addition to being delightfully interesting birds. Certainly they contributed much charm and pleasure to our home.



RED-BREASTED NUTHATCH



WHITE-BREASTED NUTHATCH

Winter Birds Around a Feeding Station

By FRANK BELLROSE, JR.

Photographs by the Author

For the past two years I have had much enjoyment feeding and photographing some of the winter birds. At first my equipment consisted of merely several suet holders and an open-sided bird house. Later I added a feeding shelf which was placed between two windowsills on the house. Everything could readily be seen from my window.

At first the photography was very unsuccessful, this due, for the most part to the limitations of my camera—a vest pocket type with a single lens. Ideal circumstances were always necessary for a good picture from this camera. Later, however, I obtained a better camera, and, consequently, some very satisfactory pictures.

I used no special method other than setting the camera on a tripod several feet away from the desired point, and running a thread from the shutter, across the lawn, through the window, and into the house. Here I could pull up a comfortable chair and spend the time reading, while waiting for the visitors to appear. If I wanted a picture of a bird at the window shelf, the matter was as simple as taking any ordinary snapshot.

Early in fall I put the suet in place, and a few days later my first customer came—a Downy Woodpecker. Others followed, the Chickadees, Titmice, White-breasted Nuthatches, and once a Hairy Woodpecker. However, they came at such irregular intervals that I delayed my photographing until mid-winter, when the birds, hard pressed by the snow and cold, would come more often.

It was in the early part of December that my enthusiasm was re-kindled, for a Red-breasted Nuthatch made his surprising appearance. When I first saw him, he was hanging, head downward, pecking at the suet. Finally securing a large chunk, he flew to another tree, stuck the suet in a crevice, and proceeded to finish his meal.

"Red," as we nicknamed him, became a very regular customer. There was one seemingly peculiar habit that he invariably followed when coming to the suet feeder—he would always alight high up in the tree and proceed head downward until he reached the suet. "Red" was very accommodating and not nearly so reticent as some of my other visitors. Accordingly I got some fine pictures of the bird. I had read that suet was the only artificial food of the Red-breasted Nuthatch, so I was agreeably surprised to see him one day fly to the shelf and pick out a sunflower seed. This he took to a nearby tree, and, putting it into the bark, hammered away the outer shell and devoured the kernel within. After this "Red" often took a few seeds along with his suet. He remained a partaker of our hospitality until along in March, when he left us as suddenly as he had come.

The White-breasted Nuthatches were the most aggressive customers. Spreading their wings and tails, and with a scolding "Yank-Yank," they warned the Chickadees to stay away from the sunflower seeds. A Nuthatch would take one seed, which he would place in a crevice and hammer it open, while a Titmouse or Chickadee would fly to a limb and break the seed open by holding it between his feet.

The Nuthatches were amusing craners, that is to say, they would sometimes light on a tree-trunk, and with their bodies on one side, they would stretch their necks clear around to the opposite side to see if the coast were clear. They were provident little creatures, for after eating their fill, they would carry off a number of seeds and hide them in all sorts of places.

The Chickadees were the most joyful and confiding of all our patrons; no matter how cold or dreary the day, they were sure to greet one with a merry "chick-adee-dee-dee." Not at all diffident, a Chickadee would fly down and take a seed, even while I would be very near at hand focusing the camera. Sometimes an impatient little Black-cap lit on the camera while awaiting his turn at the suet. At times an argument and a brawl occurred among them, possibly because one had stayed too long in looking for a choice seed.

Several charming Tufted Titmice visited the feeding station, although this was usually when the weather was severe. I found them easier to photograph than their cousins, the Chickadees, because they weren't incessantly moving about. Occasionally a Titmouse would eat several seeds on the shelf, and when this happened, a quarrel generally followed with the restless Chickadees.

The distant call of a Hairy Woodpecker announces he is on his way toward a breakfast of suet. A minute later, with an impressive swoop, Hairy lands well up the tree. For a moment he is perfectly still. He then decides all is well, and slowly begins to hitch himself backward down the tree, now on one side, now on the other, until he reaches the suet. Sometimes his courage fails him upon seeing the camera, but this time he continues on and is soon enjoying a meal of suet. A second later as the shutter clicks, shy Hairy has flown, leaving me to wonder if his impression is registered on the film.

Downy Woodpecker is not nearly so shy as his bigger brother. He comes to the suet feeder many times during the day and allows a person to come within a few feet of him before deserting his repast. Downy presents one difficulty for the photographer. While partaking of his meal, he bobs his head so rapidly that on the negative his head appears several times. Once in a while a Downy will have a quarrel (generally verbal) with a Hairy over the possessive rights on the suet. Hairy is usually victorious.

A group of four Brown Creepers made my feeder their winter quarters. And though they evidently at first knew little about suet, they soon learned its food value. I have often stood near the suet and seen a Brown Creeper fly from the top of one tree to the base of the suet tree, apparently unaware of my presence. However they are very sharp eyed when seeing things close at hand. Many times I've watched them riddle a store of suet which some provident Nuthatch has hid in the bark. Brown Creepers furnish a good subject for photography.

A few Blue Jays came to the suet, while none come to the small station. But as soon as I had put the shelf between the windows, they became regular customers. At the landing of a Blue Jay on the shelf, all the other birds quickly vamoosed, leaving him in full possession of the feeder. Blue Jays preferred sunflower seeds and swallowed them eagerly. After filling their throats, they would often carry away six or seven crosswise in their bills. One afternoon I heard a loud knocking at the side of the house. Investigation proved it to be a Blue Jay on the edge of the shelf, hammering away at a sunflower seed stuck between his feet. They never quarreled among themselves, but each one would await his turn, perched on the house or a nearby tree.

The beautiful Cardinals made frequent visits to the shelf. Sunflower seeds were their favorite, and they often spent much time searching for them when mixed with cracked corn and other grains. The Cardinals did not hammer open the seeds, as did the others, but expertly shucked them out. This was an interesting process to see. As long as I remained quiet and made no quick movements, I could watch the behavior of these birds, but a sudden motion would send them flying into the bushes.

Two Slate-colored Juncos came infrequently, and this was only in severe weather. They preferred to get their meals from seeds spilled on the ground by birds on the shelf.

A flock of seven lovely Evening Grosbeaks remained from December to March. I scattered seeds for them in many places where they frequented, but obtained no picture of them. They spent most of their time feeding on hack-berry seeds which were quite abundant in the trees nearby.

A person endeavoring to photograph birds should not become easily discouraged. Many times I have pulled the thread as the bird was leaving or had just left the camera's eye. A number of my pictures contain only partial figures of the birds. Another obstacle encountered is the difficulty one has in focusing the camera correctly. Wherever the seed or suet is, care must be taken to focus the camera for a certain position, and patience is often needed to wait until the bird is on the exact, focussed spot.

Banding Events of 1934

One of the most thrilling events of the year was the catching of a young Blue Goose. There had been reports from the State Game warden that there was a "funny-looking" Goose about the harbor. After some unsuccessful attempts to locate the goose we tried "snipe-hunting" with a flashlight and a bag. We worked on the lake shore and found our bird in a very short time and in a few minutes had it in the bag, but by the time we arrived home we had as many, if not more, "Goose Bugs" on us than on the Goose. The bird was measured, sketched, banded, and released at the lake shore and the last we saw, it was still flying North. Another outstanding thrill was a hybrid Red-shafted Flicker. Every shaft in the tail contained red or rose, and considerable reddish color on the feathers in the wing. Three of the primaries in each wing were reddish but the rest were yellow. At least there was enough red to give us a real thrill, and it is recorded on our books as a hybrid Red-shafted Flicker.

An adult Woodcock was trapped. When we approached, it strutted and kept on strutting. We ran for a camera and now have a fair photo to record our only experience of a Woodcock performing.

On the trip to the Great Lakes Island to band Gulls, Herons, and Terns, we struck conditions that were far better than before; in six days we were out of bands with over four thousand on birds. The shortage of Black Ducks was very noticeable. Usually we catch several, but this year none was caught and only a very few were seen.

In 1932 we found a Kingbird's nest on a fallen tree that was about

seven feet from the ground; the nest contained young and they were banded. In 1933 we found the same nest in use by Kingbirds and the young were banded. This last year the tree was down on the ground but there was a Kingbird's nest within twenty-five feet of the same spot, but as we were two weeks earlier than usual, the nest had eggs instead of young.

An old friend, a Blue Jay, came back to us again in 1934, which makes ten years that have passed since it was first banded as an adult bird—so it is at least eleven years old.

A man came to write a story about Bird Banding for a magazine and as we were showing him around, we came to the last traps and there were nine Bob-whites! The first we had ever trapped! Could one have planned a better grandstand publicity stunt?

Another Saw-whet Owl brought our total up to ten.

Our total of birds banded up to 1935 is past 65,000. The outstanding totals are as follows: Herring Gull 14,702, Ring-billed Gull 2,985, Common Tern 7,699, Caspian Tern 3,490, Brown Creeper 1,296, White-throated Sparrow 1,200 plus, Slate-colored Junco 5,051, Fox Sparrow 1,554, Lincoln and Swamp Sparrow about 350 each, Song Sparrow 882, Harris Sparrow, regular for 13 years, total 59, Bronzed Grackle 1,536, Robin 1,908, Waterthrush 438, Ovenbird 486.

W. I. LYON.

A Flicker Tenement

In my back yard, about thirty feet from a large dining-room window, stands what my family is pleased to call an unsightly object, i. e., the remains of a huge Cottonwood tree that about ten years ago was struck by lightning. Half of the top was broken off, and one side of the tree denuded of bark. The tree was still alive when we acquired the property, but soon after a severe windstorm finished the job, and it was necessary to saw off the stumps of the four main branches.

This dehorning left a slightly flaring top, and within a short time all evidences of life disappeared and slow decay set in.

The trunk, however, seemed still solid, so it was used as the center of clothes line distribution. Many birds during spring and summer used the stub as a perch, and from time to time Woodpeckers, Flickers, Downy and Red-heads investigated its possibilities as a building site.

In 1931 a pair of Flickers visited the stub, and after much apparent consultation and noisy demonstrations, decided to build, or I should properly say, excavate. The stub being in plain view, the family watched with great interest the slow but persistent digging in of Mrs. Flicker.

Gradually her body would be farther out of sight, first head and neck, then shoulders, next the body, leaving only the spiny tail showing; finally no portion would be visible, and the only evidence of activity was the muffled pecking and the increased accumulation of chips at the base of the tree. During the excavating process, curious Sparrows would sit above craning their necks in their desire to see what was happening. They made no effort, however, to interfere, as no doubt they knew of the efficiency of the strong Flicker bill.

In due course we knew that the birdlings had hatched out, and almost before we realized that it could be possible, heads would show at the entrance of the nest, and the process of feeding could easily be observed. Then would be noted the coaxing of the young birds to fly, with usually one more backward than the others, holding out until the rest of the brood had been away for several days.

In 1932 and 1933, the stub was occupied, each year a new nest being made, and in 1934 the fourth nest was excavated. In the meantime Starlings had increased to such numbers that they scouted for abandoned Flicker holes, and a pair came to our stub tenement. They were so obnoxious that eventually the Flickers left in disgust. The Starlings lost no time and built a nest in one hole, and soon after a second pair arrived. With the appropriation of the stub by the Starlings the English Sparrows also moved in. After the interlopers were well settled, I raided the tenement and destroyed two Starling nests and three Sparrows' nests.

Soon after the stub began to decay, we discovered that it was being used by a colony of large black ants. Cutting away the outer surface revealed a thriving ant community, and a large part of the stub reduced to a shell by their house building. We destroyed the ant colony by spraying into it a powerful insecticide, and since then they have not returned.

During the decay of the stub, several species of fungi have taken possession. One of these is a perennial shelf mushroom, one of polyporus group, which although frequently removed appears again with the persistency of cancerous growth. At the base of the stub, evidently parasitic on the decaying roots, is a colony of black-spored *Coprinus*, probably *C. atramentarius*. When these mushrooms appear, they are in sufficient numbers to provide a hearty meal, though we do not use them.

Cinnamon vines and Wisteria have been trained up on the trunk, partially hiding its unsightly, scarred body, while at the base a flower bed was made in the form of an oval, which has also added to the interest of the tenement.

In order to discourage the Starlings, all of the Flicker holes have

been opened up. Should the Flickers return next spring, an effort will be made to evict all Starlings and Sparrows as soon as they show any indication of occupation.

ORPHEUS MOYER SCHANTZ.

Berwyn, Ill., December 29, 1934.

Three Rare Records

In the spring of 1897-98 it was my good fortune to be enrolled in the ornithology classes sponsored by Lynds Jones of Oberlin College. It was my first opportunity to meet an authority on bird life. Chapman's *Handbook of Birds of Eastern United States* was our text, which was supplemented by lectures and delightful field trips from the wooded areas about Oberlin as far as Lake Erie. I shall always be grateful that Dr. Jones taught me how to make honest, accurate observations and to keep careful records.

After leaving Oberlin, Benjamin T. Gault of Glen Ellyn was gracious in helping me solve problems in the Chicago area. To the late Frank M. Woodruff of the Chicago Academy of Sciences I am indebted for my knowledge of water birds. It was several years before I made contacts with the Illinois Audubon Society and the Chicago Ornithological Society. That is the reason these records have not been officially reported.

On the morning of April 22, 1902, I visited, as was my custom, what remained of an old nursery in southern La Grange. A heavy wind had speeded up the migration. The temperature was 80° that morning. In addition to the usual arrivals was a large flycatcher with a deeply forked tail. The bird was quite exhausted, so I observed it carefully at close range for several minutes. I entered it in my records as the Fork-tailed Flycatcher. In motoring across southern Kansas June 11, 1925, I found to my great delight several of the same species. I feel confident that my first bird was a Scissor-tailed Flycatcher.

On May 5, 1910, Mrs. Charles Raymond and I were returning from a study of water birds on the flats east of Hinsdale. As we passed through the County Line Woods we found our first Whip-poor-will. Then we flushed a much larger bird several times. Our last observation of it was on a lawn on the edge of the woods where we noted its size and markings in detail. There was no doubt in the mind of either of us that the bird was a Chuck-will's-widow.

August 23, 1913, Mrs. Raymond and I were on the beach near Miller, Indiana. Being quite familiar with the shore birds, we were greatly astonished to see a large black bird rapidly skimming just above the surface of the water, flying eastward. From pictures we had with us we identified it immediately as a Black Skimmer. Mrs. Raymond later verified our

record as she studied Skimmers by the acre in Florida. December 29, 1931, it was my pleasure to see large flocks of Black Skimmers on the Gulf off the coast of Biloxi, Mississippi.

I almost wish I were a collector to prove without question what I am satisfied is true. One wonders what becomes of individual birds that have gone astray in migration.

ESTHER A. CRAIGMILE.

Notes from Here and There

The 1934 Duck and Quail Season

In Adams County the hunters report the past season as the poorest Quail season in probably twenty-five years. The long drouth of the summer dried up all the ponds and creeks with the result that young Quail were unable to get water to drink. Young birds were included in very few of the bags killed this season. Of course, there was the age-old statement that the birds were wild and had scattered, but no one seemed able to find the covies. (They are hard to find when they are nearly gone.)

Similarly, duck hunters complain that the ducks had never come down from the North. This plaint has been heard for the past few years. However, weather reports and newspaper records show that Minnesota and parts of Canada were covered with more than a foot of snow, and good bags of birds were secured only on a few of the clubs, where the unsportsmanlike and pernicious habit of baiting was tolerated.

I hope the reading public will not be misled to believe that all the hunters in the state of Illinois are sympathetic with the baiting menace as we find it in some sections of the Illinois river. Mississippi river hunters, as a whole, are very much against the baiting of ducks. It is basically wrong, and any biologist will agree that the shooting of birds either at the nest or at feeding locations is wrong. The sooner this unfortunate practice is stopped, the sooner we shall find an increase in the number of birds which migrate up and down the water courses yearly.

The variable shooting season, which allowed shooting for three days of the week on one side of the river and two days a week for a longer period on the opposite side of the river, caused much misunderstanding and considerable hard feeling. It benefited the professional shooting locations such as we find on the Illinois river where they bait, and works a hardship on the hunters along the Mississippi river where they resort to calling the birds in as they travel back and forth in search of natural food. The opinion of the majority of the local hunters seems to be that birds became used to feeding in certain localities during the week and were murdered on Saturday. Sunday kills were almost negligible, as the birds

became suspicious after the terrific bombardment carried on, on Saturday.

I feel that it would be wiser for the Biological Survey to control the shooting date throughout the country and do not feel that the Illinois season was either wise or fair to the ducks or to the hunters at large.

For the first time in my life, I have found that many of the hunters are voluntarily suggesting closed hunting seasons on both Quail and ducks. This alone is not all that is necessary. Mr. Darling's plan of breeding areas is admirable if enough money can be raised to establish these preserves. Certainly a closed season should be proclaimed, both in Canada and the United States for several years, to allow these birds an opportunity of reestablishing themselves. As to Quail, a closed season is not sufficient. However, if any hunters' organizations make a study of the farms in their neighborhood and see that a few fence corners are allowed to grow up in blackberry and hazel brush, that a little planting of kaffir corn and soy beans are planted along some of the fence rows, and that pond water is available on every second or third farm, there is little doubt that this, together with a closed season for several years, would bring back the Quail in surprising numbers.

The erection of lean-tos by sportsmen, and the feeding of Quail during the few days that ice and snow cover the ground, will save then in tremendous numbers, as I really believe that in most counties of Illinois nearly as many Quail are winter killed as suffer death from the guns of sportsmen.

I find a growing tendency among the farmers in Adams County to refuse permission to shoot over their grounds unless the sportsman is willing to agree to build lean-tos and feed the Quail during the period of snow and sleet. If a campaign could be carried on through the farm papers which would make this policy effective throughout the State, it would show immediate results.

I still maintain that the small percentage of our citizens who hunt should not have the right to exterminate wild birds, either game or song, when the much larger percentage of citizens would prefer having them left for the enjoyment of the next generations.

DR. T. E. MUSSELMAN.

Where Does The Hermit Thrush Sing?

One of our members would like to know where the Hermit Thrush may be heard. Are the most of these migrants quiet, or are they in full song when they pass through our territory?



CANADA GEESSE

Photograph by A. M. Bailey

The Horseshoe Lake Sanctuary

By ALFRED M. BAILEY

When late October rolls 'round, and the warm sun of Indian summer throws intricate shadows among the cypresses which line Horseshoe Lake, the first of the Canada Geese drop in from their trek from northern breeding grounds. There is no evidence of frost in the air; the leaves of the trees are green and the beautiful asters nodding in the wind give no hint of approaching winter. But the geese begin to arrive on schedule. These first arrivals are not migrating because of inclement conditions to the northward—they have simply grown tired of their summer homes and have commuted, as have their ancestors before them, over the unmarked sky trails to this place of refuge. Flocks of fifteen to fifty, in wedge formation, cut the blue from the distant north, their wild voices calling from afar to those which have arrived before them, and they, in turn, being answered by birds massing upon the glistening waters of the ox bow lake. The new arrivals coast in on set wing, high in the air until over their winter home, and then spiral downward, breaking into family groups as they join the welcoming clamorous throng. Birds continue to

arrive from the north throughout November, until the cold in the north has forced the last of the migrants from frozen shores.

Horseshoe Lake, in Alexander County in Southern Illinois, is a State Game Refuge, probably the most important in our state or in the midwest, for thousands of Canada Geese spend the winter feeding upon the five hundred acres of wheat which have been placed there for their special benefit. They have approximately twenty-five hundred acres of land, an island surrounded by the oxbow lake—an old river bend—on which to feed and rest without molestation, and so we find this great host of wild fowl wintering in the State, instead of moving southward to a warmer region.

Where there is such a concentration of geese, it is natural that there should be many hunters during the open season, and consequently many geese are killed, and the land owners in the near vicinity receive considerable revenue from granting hunting privileges.

It is unfortunate that the state does not possess land bordering the lake, for under present conditions, it is possible for hunters to shoot to the water's edge, and if it were not for the fact that wild geese learn by experience and are extremely worldly wise, they would long since have tread the path of the Great Auk and the Passenger Pigeon. But geese have learned not to depend on man; they watch out for themselves, so when they leave the water, they rise high in the air before starting their flight to their feeding grounds. Consequently, very few birds are killed in pass shooting. The majority are killed at shooting pits where the birds are attracted by food and live decoys.

This past season Mr. E. G. Wright and I accompanied Dr. H. H. Röss, entomologist of the Illinois Natural History Survey, to the Sanctuary that we might make a bit of motion film of the wintering geese for the Survey, as desired by Dr. T. H. Frison. We made our headquarters in the commodious dwelling place on the island through the kindness of Mr. and Mrs. Luther Bourland, who are in charge of the Sanctuary. There are two major attractions on the island—the thousands of geese feeding unmolested in the wheat field, where they are jealously guarded by Mr. Bourland, and the table presided over by Mrs. Bourland. A person would be justified in traveling a long way with such a combination at the journey's end.

We found the feeding geese very tame; they would allow us to drive within one hundred yards of them. When the car was stopped, however, they slowly ambled away, heads up, a few of them honking derisively. Once as we watched a band, a Bald Eagle flew low across the field, and the geese flew up with alarmed cries; the eagle paid no attention to them, merely swooping and disappearing among the cypresses.

We were at the Sanctuary one Saturday morning during the open season, so at time for sunrise, we hiked to the southern end of the island where the majority of the birds were resting in the water. A light snow

drifted among the gaunt arms of the trees and the hordes of clamoring geese were black against the dark water. The geese did not begin to leave until well after seven o'clock, but they were uneasy, many flying up from the water and then dropping back. Finally, several hundred birds raised with a roar of beating wings, their wild voices echoing and mingling with the calls of swimming birds. They headed southward and were lost to view in the snow as other birds began to rise from the surface of the lake. Soon there was a barrage of gun fire and for the next several hours guns were heard on all sides as hunters fired into the hungry fowl. Geese began to return to the Sanctuary; bands of badly frightened birds which had been routed from the feeding pens where they had fed in security during the previous days when no shooting was allowed. Occasionally an old honker would fly overhead, circling and calling anxiously to a lost mate. Is there any call more lonesome, more forlorn, than the distress note of one of these grand old fellows whose life partner has just been shot? I know of none.

Owing to the weekend shooting allowed in Illinois during the past season, the geese had five days in which to become accustomed to the feeding grounds away from the Sanctuary. Saturday was the big time for hunters, and the majority of birds were taken on that day. All the shooters mentioned how wary the birds were on Sunday, and consequently, few were killed. There can be little doubt that the staggering of the season over twelve weeks caused the birds to suffer unusual punishment.

The state of Illinois is particularly fortunate to have such a wonderful congregation of Canada Geese as is found on the Horseshoe Sanctuary. As I saw the thousands of birds resting in security on the lake or in the wheat field, I could not help but try to visualize our great middle west when there were thousands of like areas where hundreds of thousands of geese massed during the spring and fall flights. And so, while the birds of the Sanctuary present a marvelous sight to one interested in wild fowl, it is well for us to remember that these are just a few birds, after all, in comparison with their numbers a short time ago, and that they should be jealously cared for. There can be no question that wild fowl hunting is a sport which is engaged in by men in all stations of life, but the day of the big bag and the long season is gone forever. If we are to continue even in a small way, we must watch to see that these few thousands of birds are given a chance to go back to their nesting grounds in increasing numbers, if possible. And that can be done only by shorter seasons and smaller bags. After all, the average sportsman will admit that getting afield is the main thing; he is not a game butcher as over-enthusiastic conservationists are apt to term him. I believe that a sane program which treats all parts of the country alike will be welcomed by the majority of the outdoors fraternity, even to alternate closed seasons, if necessary, in order that an adequate breeding stock of all species of ducks and geese may be maintained.

Game Birds Need Protection

On recent field trips I have been especially interested in game birds and I regret to say that very few were found. On the December 25th trip I observed tracks made by two Quail; December 30, one covey of seven birds; January 1, two coveys, one consisting of four birds and the other of five birds. No Pheasants nor their tracks were observed, although I have released eighteen in the last two years. Observations of myself and others indicate that the Bob-white is decreasing in numbers and that their number in this locality has reached a stage bordering on extermination. If the balance of the Central Zone has a like condition there is an abundance of evidence that the Quail should be given the protection of a closed season together with some effort by the State Conservation Department to restore cover and food supply by intelligent game management.

The worst enemy of wild life is a politically controlled Conservation Department such as we have in this state and unless we force a change I feel that the small remnant of wild life left in the state will soon vanish. Our neighbor, Iowa, under the Commission form of Conservation Department, is taking the lead among the states and under their twenty-five year plan it will be noted that they plan not only to restore and protect game birds, but all other kinds of birds as well. In Illinois we sit on the side lines and see our conservation funds used for the purpose of rewarding political workers by giving them well paid positions with very little in return being demanded. Public opinion is against this practice and is only awaiting a leader to direct them in a war for the protection and restoration of wild life in Illinois.

HAROLD AULT, Fiatt, Ill.

Winter Notes from Williamson County

Weather conditions for late fall and early winter have been at extremes, either fair and warm or cold and rainy. Up until Thanksgiving, Indian summer prevailed, with only a few light frosts, but since then, heavy rains and cold spells have been in order. These conditions have caused changes in the usual routine of bird activities. Transients have stayed later than usual, and dates for winter residents from the north have been later. At present, the latter are decidedly scarcer than usual. Our winter birds are: Pied-billed Grebe, rare and a late winter arrival; Buffle-head, rare in the early winter, less so later; Red-tailed Hawk, common, Sparrow Hawk, common.

The Bob-white is less common than usual. It seems that the long dry summer which caused this species to nest later than usual, followed

by the hunting season, has reduced their ranks to quite a noticeable degree. A game warden reported one brood of newly hatched Quail on the opening day of the hunting season (November 10th).

Killdeer, a rare winter resident; Mourning Dove, not common. Sometimes a flock will stay all winter, feeding in wind-protected thickets in bad weather and foraging in deserted grain fields in more open weather. Screech Owl, a rare winter resident; Barred Owl, rare; Flicker, quite common; Red-bellied Woodpecker, at present quite common; Red-headed Woodpecker, at present not common. It seems that this species and the above are never common at the same time after the breeding season. At one period of winter, the Red-bellied Woodpecker will be quite common, while the Red-head will be rare. Then the situation will change and the Red-head will be common and the Red-bellied less so. I can advance no reason for this peculiarity. Hairy Woodpecker, quite common; Downy Woodpecker, quite common; Blue Jay, very common; Crow, quite common; Black-capped Chickadee, quite common; Tufted Titmouse, common; White-breasted Nuthatch, a late winter arrival and rare; Brown Creeper, less common than usual; House Wren, rare winter resident; Winter Wren, not common; Carolina Wren, quite common; Mockingbird, more common than usual this winter; Bluebird, not common but more so than usual; Golden-crowned Kinglet, not a common winter resident, common transient; Ruby-crowned Kinglet, rare, less so in the late winter and early spring; Cedar Waxwing, rare; Migrant Shrike, not common; English Sparrow, abundant; Meadowlark, common at intervals; Rusty Blackbird, not common; Cardinal, quite common; Purple Finch, a rare winter visitor; Goldfinch, common; Red-eyed Towhee, rare winter resident; Vesper Sparrow, not common; Junco, very common; Tree Sparrow, quite common; White-throated Sparrow, not common; Swamp Sparrow, common; Song Sparrow, quite common.

LEE BUSH, Cambria, Ill.

Notes from Ottawa, La Salle County (The 1934 Season)

The cold weather of midwinter brought a flock of the rare northern visitants—the Evening Grosbeaks, to Ottawa, December 27, 1933. They stayed until the middle of April, feeding on blackberries, which furnished them a bountiful supply during their stay. A flock of Cedar Waxwings were also observed feeding on these berries January 1. Two Red-breasted Nuthatches came to a friend's suet until the first of April. A Kingfisher remained throughout the winter—having to eke out a meager living on several occasions, when the river froze over.

Many ducks and a few Coots wintered. When the Illinois river became ice-coated, they clambered onto the ice and huddled together. So weak were some Lesser Scaups that a man picked up several of them. The waterfowl migration was very encouraging in the spring—the water being black with Coots and ducks. On one such day I observed fifteen species of ducks. Among those I observed were the Black Duck, Baldpate, Canvas-back, and Shoveller.

Since the creation of the Starved Rock Dam, several years ago, marsh growth has become yearly more abundant over the flooded land. This has caused many ducks and other marsh birds to nest here. A King Rail's nest was found on May 27. A wild Mallard's nest was discovered in a grassy vacated grape arbor several hundred feet from the Illinois river, by a friend. At that time, late in May, the nest contained eleven eggs. I observed several young wild Mallards in the river July 21st. I saw several recently hatched Blue-winged Teal July 28th on the Fox river. In this case the female Teal swam, crying pitifully, a few feet in front of my canoe. When pursued, she flew a short distance and alighted on the water. This was repeated several times. Meanwhile, the young Teal rapidly swam through the reeds. During late June and July I discovered several Coot and Gallinule nests, and I saw many Coot families—the young ranging from recently hatched to nearly full grown. Strangely enough, each Coot seemed to have no more than four young. Several young Pied-billed Grebes were also noted. Shovellers and Lesser Scaups were observed throughout the summer, though no indication of their breeding here was found.

By hard field work and the help of friends I located nine raptors' nests. The first—a Great Horned Owl's—was discovered on February 24. The nest contained two white spherical eggs, which were later destroyed by Crows. I found a Red-tailed Hawk's nest on March 17, two on the 18th, one on the 24th, and still another on the 25th. I located a Long-eared Owl nesting in a rock cleft of an abandoned sand quarry April 21. A Marsh Hawk's nest was shown to me June 16. A Cooper's Hawk's nest, with the young half-grown, was disclosed to me by a poultry farmer on June 25.

The shore bird migration was about as usual. Semi-palmated Sandpipers, Least Sandpipers, Semi-palmated Plovers, and Pectoral Sandpipers were very common wherever suitable mud flats presented themselves. On May 24, I saw a Red-backed Sandpiper in a company of other Sandpipers. In the fall the only notable record was that of a Dowitcher, September 6. Many Spotted Sandpipers nested in the sand quarries near here. Several of their nests were under observation at the same time.

Because the waterfowl flight in this section was very light this fall, all the hunters are complaining. However, Ruddy Ducks, Lesser Scaups, and Golden-eyes were more common this season than in the past several.

A Christmas census that I made accompanied by Jeff Drury on

December 26 gives a conception of the winter bird life in the vicinity of Ottawa. Our course lay along the south bank of the Illinois river, through the trails of Starved Rock State Park to Utica, and back along the I. M. Canal and Buffalo Rock. The list is as follows: Mallard, 19; American Golden-eye, 11; Bufflehead, 1; American Merganser, 16; Ducks, unidentifiable, 10; American Rough-legged Hawk, 1; Red-tailed Hawk, 1; Bob-White, 18 (2 coveys); American Coot, 12; Herring Gull, 35; Ring-billed Gull, 15; Eastern Mourning Dove, 1; Eastern Screech Owl, 1; Great Horned Owl, 2; Barred Owl, 1; Northern Flicker, 1; Eastern Hairy Woodpecker, 3; Northern Downy Woodpecker, 10; Prairie Horned Lark, 2; Northern Blue Jay, 6; Eastern Crow, 49; Black-capped Chickadee, 16; Tufted Titmouse, 23; White-breasted Nuthatch, 4; Brown Creeper, 1; Eastern Golden-crowned Kinglet, 1; Winter Wren, 6; Carolina Wren, 5; Northern Shrike, 1; Starling, 13; English Sparrow, 50 (est.); Redwing, 600 (est.); Eastern Cardinal, 14; Slate-colored Junco, 200 (est.); Eastern Tree Sparrow, 350 (est.); Mississippi Song Sparrow, 25. Total, 35 species, 1,524 (est.) individuals.

A number of other half-hardy birds have been wintering here, despite the cold and snow of December. I observed two Robins on December 23, which used a thick clump of evergreens for a roost. On the 24th I saw three Eastern Meadowlarks, and six Mourning Doves. A Kingfisher was noted on January 2, hovering over the surface of a frozen pond.

December 27 will always stand out in my memory. On that day, with two companions, Phillip and James Drury, I noted a large bird on a dead tree, a short distance below the Starved Rock Dam. Going closer I took note of its large size and blackness of plumage. I knew it to be an Eagle, but I was in doubt whether an immature Bald or Golden. We circled closer until less than two hundred feet away, and I had just time to glimpse the dark brown back, before the Eagle spread its wings and flew close to the water. There, as it wheeled about, we saw a distinct white patch at the base of the tail. For the next ten minutes the majestic bird flew and soared near us, its body appearing black, with two white patches being visible on the primaries. The Eagle had some surprises for us, for suddenly it darted upward, turned over, and swept downward. This it repeated several times in quick succession—reminding me of a Swallow darting upward after some passing insect. The Eagle's call, uttered several times, was a deep throaty "Cah, Cagh."

I observed a Short-eared Owl in a dried-up marsh, and many Goldfinches, December 28. A Short-eared Owl was given to me by a hunter, who had slightly wounded it. The Owl was put in a cage, but it refused to eat Sparrows or meat. After two days the Owl was given its release though it could not fly.

A friend saw four Great Blue Herons on December 19. With the chance that they might still be there I made a trip to the designated spot on the Fox river, December 30. When I saw the ice-coated river, I had

little hope of seeing them. Nevertheless, I continued, and I was rewarded by seeing one at a break in the ice, caused by rapids. Standing perfectly still on the edge of the ice it occasionally struck at the fish congregating about the air hole.

I observed a flock of ten Purple Finches feeding on the seed-clusters of the sycamore, December 30. By clinging to the top of the cluster they managed to reach down and get the seeds, though the cluster swung like a pendulum. Later in the day I observed a Red-headed Woodpecker.

FRANK BELLROSE, JR.

A Fall Visit to Orland Marsh

During the fall of this year I have made two trips to Orland Marsh (Cook County) and both times was fortunate in making some good records.

The first trip on September 29th was not a very extensive one, as I hiked only half way around the swamp. The marshes were almost dry, and very little of the customary aquatic plant life was evident. A small but varied flock of about two hundred ducks was crowded into the only patch of open water, far out from where the shores are in ordinary seasons. The ducks present were: Red-breasted Merganser, Mallard, Black Duck, American Widgeon, Blue-winged Teal, Pintail and Wood Duck. The striking Wood Ducks were separated from the others, and gave me an excellent chance for observation before they finally took flight. The male Baldpates were brilliant among the more drab-colored ducks and could easily be picked out at a distance without the use of glasses.

Farther up the marsh, and in muddy land covered with long grasses, a group of twenty-six Great Blue Herons stood like so many fence posts. At one end of the swamp a lone American Egret flew from the grass to the dead limb of a nearby tree (this date is late for the Egret in this area).

On an isolated island of cat-tails one hundred yards out in the swamp, three Florida Gallinules stalked in and out among the reeds, while overhead a Duck Hawk harried a small sandpiper (probably Pectoral). The hawk seemed to be playing with the sandpiper, and frequently dropped down at it from above.

On October 20th, I made the second trip to the swamp. I arrived just after dawn in a driving rain which lasted all day.

The Duck Hawk was again present. This time it flew from the oaks on a wooded hill out into the top of a cottonwood, insulated in a plowed field. There it was observed at so close a range that with field glasses the sharp black and light face markings were seen. The hawk stayed about the edges of the marsh for quite a while.

In the plowed fields many small birds were constantly rising into the sky as I disturbed them. Later in the day I observed them at close range and found them to be Pipits. They flashed white outer tail feathers as they ran over the ground or dashed in chase of one another on the wing.

A much varied flock of sparrows was hunting seeds in a sumac thicket, and among the many Tree Sparrows, Juncos, White-throats, and White-crowns, a lone Harris Sparrow was found. The black of its face and throat was blotched with light feathers, and from its general markings I took it to be an immature bird.

This great swamp is one of the best of our nearby natural bird refuges because of the varied nature of the surrounding country and because of its large size. As it is still partly in private ownership, hunting cannot be entirely prohibited. Steps should be taken by the state to secure the remaining private lands and thus protect the abundance of wild bird life at Orland.

AULDEN D. COBLE.

1934 Notes and Records Taken Near Park Ridge, Cook County, Illinois

The territory which this report covers is, largely speaking, that between Norwood Park, a suburb of Chicago, and Dam No. 3 (or 4) on the Des Plaines river. We cover about one and one-half miles of the river and the rough triangle thus formed is excellent bird ground inasmuch as it includes all kinds of country, forest, scrub, grassland, marshes, and the river.

On New Year's Day the first hike of the year was taken and the following birds obtained: Rough-legged Hawk, Marsh Hawk, Ring-necked Pheasant, Herring Gull, Belted Kingfisher, Hairy Woodpecker, Downy Woodpecker, Blue Jay, Crow, Black-capped Chickadee, White-breasted Nuthatch, Brown Creeper, Robin, Northern Shrike, Starling, Cardinal, Slate-colored Junco, Tree Sparrow, Swamp Sparrow, Song Sparrow.

January 6—Yellow-bellied Sapsucker.

January 7—Sparrow Hawk.

January 13—Meadowlark, Rusty Blackbird.

January 19—Screech Owl, Prairie Horned Lark, Lapland Longspur.

January 21—Snow Bunting.

This list includes, with a few exceptions, last winter's birds for the area.

February 22—Mallard Duck, Bluebird.

March 3—Barred Owl. This owl was found dead and, we judged, had been so for about a week. Since it was the first seen in the area we

had it mounted and found that it had died of an infection in the wing where it had been shot.

March 4—Killdeer, Flicker.

March 5—Red-winged Blackbird.

March 10—Goldfinch, Golden-eye Duck, Ring-necked Duck, Purple Martin. We saw this Martin as it was flying over but the majority arrived about May 6. On the tenth of March, a Prairie Horned Lark's nest containing three eggs was found. The temperature was only five degrees but on the twenty-third two were hatched. On the twenty-ninth one of the young birds had been killed and the other had apparently been deserted.

March 15—Bronzed Grackle.

March 17—Migrant Shrike, Canada Goose, Hooded Merganser.

March 18—Lesser Scaup Duck, Coot.

March 20—Black-crowned Night Heron, Pintail, Cooper's Hawk, Red-shouldered Hawk.

March 21—Pied-billed Grebe.

March 24—Green-winged Teal.

March 26—Saw-whet Owl.

From the twenty-eighth to the thirty-first, an overnight hike was taken. The first night a Saw-whet Owl was heard. The next night we were greatly surprised at hearing what we took to be a Nighthawk. We rushed to the edge of the little woods which bordered some low ground and a scrubby growth of hawthorne. It was nearly dark. Suddenly a Woodcock rushed over with a whistling of wings and uttered the familiar "peent" of the Nighthawk. These notes were usually uttered on the ground. Having repeated them several times he left the ground and started a large spiral flight upward. A series of notes similar to those of the Lapland Longspur continue throughout the flight. We estimated his mount to be from two to three hundred feet at the top of which he uttered a few lower notes and then dropped suddenly downward. This performance was repeated over and over. There were at least two doing it successively and at about midnight the "peent, peent" was heard again so it may continue throughout the night. The moon shone only occasionally and irregularly. This was March 29 but on May 3 the performance was still being carried on. They may have nested as we saw them through May, June, and July. The Woodcock was seen from March 29 to October 20.

March 30—American Bittern, Red-tailed Hawk, Lesser Yellow-legs, Mourning Dove, Cowbird, Fox Sparrow.

March 31—Phoebe, Golden-crowned Kinglet, Towhee.

April 2—Redheaded Woodpecker.

April 3—Hermit Thrush.

April 4—Purple Finch, Savannah Sparrow, Vesper Sparrow, Field Sparrow.

April 7—Wilson Snipe, Spotted Sandpiper, Wood Pewee, Red-

breasted Nuthatch, Ruby-crowned Kinglet. The early Wood Pewee attracted our attention by his gentle "pe-a-wee" reminding us of a hot summer day although snow was still on the ground.

April 8—Short-eared Owl, Red-bellied Woodpecker, Myrtle Warbler.

April 14—Winter Wren, Double-crested Cormorant, Chipping Sparrow.

On the fourteenth, we were privileged to see the mating performance of the Marsh Hawk. Both the male and the female indulged in it although the male was much the more active of the two. He pursued a very irregular line of flight resembling, as Seton terms it, "the outline of a gigantic saw." At times he even went so far as to make several complete loops. Both landed in a field about fifty feet apart and shortly afterwards rose and flew off quite normally. On June 23 we crossed this field and were surprised at flushing a female hawk. Under her were three downy young which were photographed. On June 28 they were much larger and on July 8 we found one near the nest mashed, we judged, by a human foot. Perhaps only the runt was killed.

April 15—Great Blue Heron, Solitary Sandpiper.

About the middle of April, eight Bluebird houses were put up, following the suggestion by T. E. Musselman in last January's *Bird Lore*. The majority of them were on fence posts. Two more were put up later. Our first nest appeared on April 22 and eggs were found on the 29th. Six houses were occupied and a total of thirty-four eggs were laid. We are quite sure seventeen of these matured and flew away. Next year we expect to build more houses and to have a better percentage as to occupancy.

April 22—Bartramian Sandpiper, Brown Thrasher, Greater Yellow-legs, Blue-winged Teal.

On the 25th we finally found what we had looked for all winter. Near one of the larger homes in town we saw a male Evening Grosbeak. He had been there about three or four days according to the owner but he left the next day, apparently, as we saw no more of him.

April 26—White-throated Sparrow.

April 28—Pine Warbler, Barn Swallow, Palm Warbler.

April 29—Bobolink, Pectoral Sandpiper, Wilson's Phalarope, Cedar Waxwing. The Phalarope was our first record for the area. It was a male, however, lacking the brighter color of the female. We watched it carefully for quite a long time.

April 30—House Wren, Chimney Swift, Black-throated Green Warbler.

May 1—Olive-backed Thrush.

May 2—Rose-breasted Grosbeak, Baltimore Oriole.

May 3—Redstart, White-crowned Sparrow, Green Heron, Rough-winged Swallow, Grinnell's Water Thrush.

May 4—Catbird.

May 5—Veery (and probably Willow Thrush—not counted, however).

May 6—Least Sandpiper, Crested Flycatcher, Acadian Flycatcher, Long-billed Marsh Wren, Cape May Warbler, Northern Yellow-throat, Nashville Warbler, Black and White Warbler, Ovenbird, Least Flycatcher.

May 9—Nighthawk.

May 10—Short-billed Marsh Wren, Warbling Vireo.

On May 12 our annual spring migration hike was taken. Frank Wadsworth, Nick Collias, Aulden Coble and I went, travelling in two groups most of the time. Each covered about forty miles on foot. Leaving at 4:30 A. M. and returning at 10:30 P. M. we covered the ground quite thoroughly obtaining 105 species. The temperature went from 38 to 65 degrees (about 56 degrees at noon) and it was cloudy all day, raining part of it. A light south wind prevailed. Space does not permit inclusion of the whole list but the best records follow: Orchard Oriole, Prothonotary Warbler, Orange-crowned Warbler, Harris Sparrow, Red-breasted Merganser, Semipalmated Plover (13). Twenty-one species of warblers and eighteen members of the sparrow family were seen. Other new birds for the year were: King Rail, Sora Rail, Ruby-throated Hummingbird, Kingbird, Tree Swallow, Bank Swallow, Wood Thrush, Blue-gray Gnatcatcher, Blue-headed Vireo, Red-eyed Vireo, Black-throated Blue Warbler, Blackburnian Warbler, Wilson Warbler, Chestnut-sided Warbler, Magnolia Warbler, Bay-breasted Warbler, Yellow Warbler, Golden-winged Warbler, Tennessee Warbler, Scarlet Tanager, Indigo Bunting, Grasshopper Sparrow.

May 19—Florida Gallinule, Common Tern, Black-billed Cuckoo, Yellow-billed Cuckoo, Whip-poor-will, Yellow-bellied Flycatcher, Black-poll Warbler.

May 20—Semipalmated Sandpiper, Leconte's Sparrow.

May 24—Canada Warbler.

May 27—Connecticut Warbler.

May 30—Least Bittern.

June 6—Alder Flycatcher.

A colony of about fifty nests of the Bank Swallow was discovered in the side of an old sand pit on June 19. The Rough-wings nested in the drain-holes under the concrete bridges this year as before and, on May 27, the first nest was being built. Late in June we saw the parent birds, while on the wing, feeding youngsters which were perched on telephone wires over the river.

On June 23 was found the first Bob-white for the area. This was indeed a welcome surprise. The sun had risen about half an hour previously and the dew was glistening on the corn ahead of us when suddenly we heard the familiar (not here, however!) "Bob-white, Bob-white." We

managed to flush him, a single individual. Although it took about twenty minutes our efforts were well repaid.

On July 8 a Dowitcher was seen at the bay above the dam. His reddish breast, long bill, and brown back were carefully noted. He remained until September 10 and added a new bird to our permanent list for the dam.

August 11—Olive-sided Flycatcher.

August 26—Lincoln Sparrow (probably earlier), Yellow-headed Blackbird.

On September 10 our regular fall migration hike was taken by the same fellows that went on the all-day spring hike. This one was from 4:30 A. M. to 8:10 P. M. and each covered about twenty-five miles. Again we went in two groups most of the time. The temperature ranged from 56 degrees to 70 degrees, the wind was light S. E. to S., and the sky was more or less cloudy. We found eighty-four species altogether, nine kinds of flycatchers, but only fifteen species of warblers. New ones for the year were Duck Hawk (?), Broad-winged Hawk, and Sharp-shinned Hawk.

On December 24 the Christmas census was taken. The following list was made: Golden-eye Duck, Red-tailed Hawk, Ring-necked Pheasant, Herring Gull, Long-eared Owl, Belted Kingfisher, Flicker, Hairy Woodpecker, Downy Woodpecker, Crow, Black-capped Chickadee, Tufted Titmouse, White-breasted Nuthatch, Brown Creeper, Golden-crowned Kinglet, Starling, English Sparrow, Meadowlark, Cowbird, Slate-colored Junco, Tree Sparrow, Song Sparrow. The Long-eared Owl is a new species for the area giving us all the Chicago owls except the Snowy.

The year has been a fairly good one. These records, however, are far from complete as the reader can easily see. In some cases the dates are fairly good but in others they are very poor. I have often wished we could go out every day in one year. That would enable us to make some real records, but ? ? ?

DONALD DUNCAN.



LOUISIANA WATERTHRUSH IN NEST

Photograph by F. R. Dickinson

A White-throat at Wings' Rest

It was during the Spring migration that I found a White-throat in the sparrow trap and suspected, without being quite sure, that one wing sagged a little. When he was released, there was no doubt of his being slightly disabled, for he scuttled away some distance on foot and took off on wing only after hopping rather high in the shrubbery. Of course, I was sorry that I had not captured him while the chance was good to see if the wing could be adjusted. It was too late then, and he was never careless about that trap again.

After the migrants passed on north, one plaintive little White-throat song persisted daily until July 23rd; and regularly we saw him around the house, the same little fellow with a tendency towards lopsidedness. He called himself Sweetie, and came to be called Sweetie.

The long, hot, dry summer was over at last, and under date of September 3rd, my notes record two important words, "Sweetie sang." On September 23rd, the notebook says, "White-throat migrants. Three in the bath together." During the next six weeks, the number increased and decreased, and then all disappeared except our Sweetie, who welcomed the arriving Juncos alone.

He is under our window every hour of every day, sometimes on the south, but if not there he is sure to be on the north, or the east, or the west. At 4 o'clock, the time the English Sparrows retire from the scene, his supper is spread, and he and the Juncos feast together. Rarely he comes to the window tray, for he prefers to feed on the ground. At 4:35 the day is done and he mounts high, hopping from ground to shrub, from shrub to tree, and from a point where a bird can have a wide horizon, he starts on the long flight to the thicket on the other side of the house near the fire-place chimney, where he spends the night.

Sweetie was the high spot in the Christmas census at Wings' Rest.

NELLIE J. BARODY.



SCREECH OWL

Photograph by A. M. Bailey

Our Bird House

Outside the lumber mill in Ontario lay some odd pieces of board. Thousands of logs had been sawed into lumber. Even the boom-logs had been cut into boards. The end pieces of these had fine round holes. "Just the thing for a bird-house," said I picking up one of them. In a short time, the house was made, tossed into the car, driven home to Chicago, and nailed to an oak tree in our back yard.

Whether the rather unusual history of the house had anything to do with it, or whether the fragrant northern pine of which it was built was the attraction, I can't say, but it proved a most popular resort for our friends in fur and feathers.

The first occupant was a Gray Squirrel who stored his acorns under the friendly roof. In the spring a pair of Flickers took possession and raised their brood. Summer came, and with it a swarm of bees who filled the cavity with honey. Unfortunately these failed to survive the cold winter. The house was taken down, cleaned and replaced. For the next three winters the tenant was a cunning little Screech Owl whose solemn face appeared daily at the opening just before dusk.

Only last week, back comes what we think we recognize as the original Gray Squirrel! He enters the house, attacks the little sleeping owl in broad daylight, pushes it out of the opening, and once more reigns "lord of his castle."

VIOLET F. HAMMOND.

Bird Notes from Trailside Museum

By MARY COOPER BACK

Trailside Museum of the Chicago Academy of Sciences and the Cook County Forest Preserves, at Thatcher Road and Chicago Avenue, sponsored about thirty-five conducted bird walks during the spring migration, and about fifteen in the fall as well as classes in bird study for Boy Scouts and Girl Scouts. A group of twenty-five boys came every Saturday at six A. M., rain or shine, from the middle of April to the first of June. Almost everyone completed his list of forty species observed in the field, his observations on the habits of twenty insectivorous birds, and other requirements.

The skin collection of the Museum bids fair to become a sort of accident record for birds of the region. No collecting has been done for the Museum, yet we have now about 300 skins, representing about 60 species. Each skin belonged originally to a sick or crippled bird, or one found dead, killed by some accident. They have been brought by almost as many people as there are specimens. In keeping with the informality and accessibility of the whole institution, the skin collection is available for use by any student, on application at the desk.

When a sick or crippled bird is brought in, the first thought is to save it, so that it may be freed again. Many have been so freed, when their minor hurts have healed, and have flown off, bearing upon a leg a numbered aluminum band from the Biological Survey. Some few, too badly injured to release, yet in no pain, and friendly in captivity, have been retained as pets. Such are the blinded Virginia Rail, a Coot, pinioned by a shot, and a Hermit Thrush and Robin with broken wings which healed a little crooked. Some, of course, must be killed, and many are brought to us already dead.

The Junior Staff of the Museum still carries on. The boys have helped with many exhibits, have learned to prepare specimens, and have guided parties in the field. The ones most interested in bird study, and doing the most worthwhile work in it, are James von der Heydt, Robert Allen, and Jack Smith. Of the increasing number of adults informally associated with the Museum, Mrs. Theron Wasson, Alberta Choate, and Merrill McGawn have done most to make it a success.

Birds have been abundant this year; the prime difficulty is to eliminate. It is impossible, in the space at our disposal, to recount one-tenth of the interesting and significant experiences we had.

An unique day was May 10, the day of our worst dust-storm. The sky was yellow and opaque, the sun was dim and hot, and a dust-weighted wind roared out of the west. All birds sought shelter. Three of us were lucky enough to find one spot which was shelter for many. West of the outlet of the slough back of the Museum is a dense thicket of small black willows, backed by a rank of hawthorns and of tall elms. All this formed

good protection for dozens of small birds, who hopped among the willow-twigs, bathed repeatedly in the small stream below the willows, and explored its shores. Miss Newton and Mrs. Baldwin sat with me on a low bank opposite the willows, and listed species just about as fast as we could write. In three-quarters of an hour, from one spot, we listed these birds: Red-shouldered Hawk (soaring low, just above the tree-tops), Chimney Swift, Red-headed Woodpecker, Yellow-bellied Sapsucker, Downy Woodpecker, Crested Flycatcher, Blue Jay, Crow, Catbird, Robin, Wood Thrush, Olive-backed Thrush, Gray-cheeked Thrush, Black and White Warbler, Tennessee, Orange-crowned, Nashville, Yellow, Magnolia, Cape May, Black-throated Blue, Myrtle, Black-throated Green, Blackburnian, Chestnut-sided, Bay-breasted, and Palm Warblers, Ovenbird, Grinnell's (?), and Louisiana Waterthrushes, Connecticut Warbler, Redstart, Baltimore Oriole, Bronzed Grackle, Scarlet Tanager, Cardinal, Rose-breasted Grosbeak, Indigo Bunting, Eastern Goldfinch, and White-throated Sparrow—thirty-nine species in all, and of course many more individuals.

The rest of these notes will be, not accounts of single days, but a resumé of some of the interesting species listed near the Museum.

An American Bittern, taken in the Skokie Valley, September 21, was brought to me. The wrist of one wing had been hurt by a stone. I kept the bird nine days, until its wing was quite well; in that time it ate 4 dozen full-grown leopard frogs, 15 crayfish, 10 skinks, a number of small sunfish, 6 young watersnakes, and a large number of earthworms. It absolutely refused toads, and took no chopped beef. All food was swallowed whole, and usually alive. The bird fought the cage very little and I would have kept it longer, had its appetite been more moderate. Wearing band 34-548010, it was freed October 1.

We saw very few ducks on the Des Plaines River; one Mallard was observed April 15, a Green-wing Teal April 28, and female Lesser Scaups April 19 and 27.

Hawks of several species were seen near the Museum, during migration periods, a Sharp-shinned April 29 and May 8, a Cooper's October 21, and Red-tails on April 14 and October 21. On this last date seven were seen at once above Thatcher Woods, slowly circling south. They were quite low, so that on the turns and against the gray and windy sky, the red tail could be clearly seen. At least four were adults.

Red-shouldered Hawks were observed May 10, 12, 24, and September 16; Broad-winged Hawks April 28, May 19, May 24 (on this occasion three were seen at once, very close, flying near a group of us as we ate lunch, either playing or fighting with each other, and often giving voice to their Killdeer-like cry).

Rough-legged Hawk May 19 (a late date for this hawk). We watched with 8-power glasses from just across the Des Plaines, seeing clearly the light head and breast, and the very dark band across the lower breast and

belly. Marsh Hawks were seen March 15, July 25, August 20, September 16, and October 6, a Pigeon Hawk September 16, while Sparrow Hawks were noted April 1, 23, 25, May 10, August 2, 20 and December 14.

A Virginia Rail was captured by a boy in a marsh near North Avenue, April 24. In captivity it ate ravenously and never fought the cage. Examination showed that both eyes were blinded—they were opaque, covered with a growth like a cataract. We have had it as a pet ever since. At first it found its way round its large cage by tapping with its beak, like a blind man with his cane, but it was not long before its movements were as free as if it could see. Its favorite articles of diet are meal-worms, chopped beef, bread-crumbs, grapes, apples, and dried flies.

Coots in the Museum have given us an interesting exhibit of individual variation. Two, brought during the fall, refused all food; nothing tempted them. They were uneasy in captivity, and were released after just a few days each. The third, brought in early December, its wing pinioned by a shot so it could never fly again, accommodated itself immediately to the cage. Nothing bothered it. It ate voraciously of corn, rice, lettuce, chopped beef, grapes, and apples and spent half its time bathing.

Woodcocks are not uncommon. Several were brought to the Museum. One had flown into a plate-glass window in a business section of Oak Park; it was picked up, where it lay stunned, and brought to us. It recovered rather promptly and after a week-end was released in Thatcher Woods. During the two days it ate quantities of earthworms. It much preferred to have the worms invisible, sunk out of sight in a pan of wet mud. It would walk right up into the pan and probe with its long beak. We found it impossible to get enough worms to satisfy it, and its muscles were perceptibly thinner when we let it go.

Screech Owls have furnished some interesting incidents. One took up his station in an elm in front of the Museum, and was there every day from May 4 to 20. It made a good, clear exhibit to show the many bird students haunting the Museum those days. It may be the identical Screech Owl from whom we took a Robin December 12. Five of us, crossing the Forest Preserves after dark, flushed a bird in the snow; it alighted just above us, his round body and upstanding "horns" silhouetted against the sky. He dropped a Robin, which fell at our feet. It was dead but still warm. A few feathers had been pulled from its neck, but the skin was unbroken save for talon-holes through the back.

A Saw-whet Owl found good hunting behind the big Public Service Company gas tank near Maywood. A ridiculously tame, innocent-looking little ball of fluff, he sat, round-eyed, on a loop of grapevine in a thicket—solemn as a deacon, while unobserved. But while no one was looking it hunted efficiently. One observer, John Danisch, saw it eating a meadow mouse; it could hardly be criticized for that—but from directly beneath its perch Mr. Danisch retrieved a male Towhee, dead, and with both wings pulled out. Later in the day, I found just behind its perch another Towhee,

freshly killed, and minus a tail. When they were skinned, each showed that he had been pierced through the chest from the back, by needle-sharp talons. The next Sunday, April 8, it was seen calmly sitting in its grape-vine loop, tearing to pieces a Junco. Some boys reported to me later in the day that when they passed the little fellow, it was just beginning on a fresh Junco, and that nearby they had found a decapitated Cardinal, and a similarly headless Robin. Next day the owl himself had vanished. And the next day a boy brought in to the Museum a Saw-whet Owl which had been shot the day before by the Forest Park police!

Kingbirds made a curious error of judgment, witnessed July 12. In mid-morning of a hot and sultry day I saw a tormented Nighthawk fly low across Proviso Athletic Field, trying to escape from two persistent Kingbirds. Every time one would make a vicious dive for its head, the Nighthawk would miss a wing-beat, duck, and give its queer cry. Apparently the Kingbirds thought it was a "regular" hawk.

Robins, probably because of the great numbers always around, are material for several stories. Two were brought in July 10. One was a half-feathered baby that had been rescued from a cat; the other a spotted juvenile about a month old, with a broken wing. The little one was kept in a canary cage for two weeks, so it would be close at hand for the necessary constant feedings. (For six weeks during late spring and early summer I carried home with me at night and back to the Museum in the morning a bird cage containing one or more squawking infant birds, too small to live from 6 P. M. to 10 A. M. without feeding.) When the little one was put in the big cage, it was laughable to see the other Robin, whose wing by now was nearly well, bustle up and take care of the newcomer. Most of the time for the next month this larger bird, only a little while ago a nestling himself, was rushing to get food for his congener. Both of them, all grown up and well, were released August 27. One Robin is with us as a permanent guest. A neighbor found it, wing broken, in her yard, September 25. It is a handsome male, with a wide pattern of white around its eye. It has always been docile and friendly. Its wing healed, in time, but remains a little crooked, so that a flight of twenty feet twists it and brings it to earth.

A Hermit Thrush, now known as "Hermie," came to us in early April. It was found on Easter Sunday, sick, misshapen, and miserable, on a River Forest doorstep. It had, perhaps, been hit by a sling-shot; one wing was bruised and very swollen. Besides, about a quarter of an inch was gone from its upper mandible. No one thought Hermie would live. But Hermie is still with us. His two wings now match, folding neatly over his back. The horny part of the upper mandible has grown slowly, till now it is nearly as long as the lower. His plumage is in beautiful shape, and the air of alert confidence with which he goes about his business makes him a joy to watch. Perhaps when spring comes we should let Hermie go. But I am afraid his new confidence in man would be his undoing.

Starlings are common throughout the year. The assembly for the fall migration is especially noteworthy in the Museum area. The region about the slough is apparently the gathering ground for all the birds for miles around; not for Starlings only, but for Grackles, Rusty Blackbirds, Cowbirds, and Robins. Flocks of these birds, sometimes with many thousands in a flock, may be seen toward sunset flying over Maywood, River Forest, and Forest Park, all headed toward this one area. Each related group has its own area; there is no great amount of intermingling. The Blackbirds (Grackles, Rusties, and Cowbirds) occupy the tops of trees in the central part of the oval woods south of the slough and within its crescent. The Robins roost in brushes and low trees in a broad band around the margin of the blackbird roost. The Starlings may be seen blackening the topmost branches of tall cottonwoods just north of the slough, and in tall oaks close about the Museum. All of these species bathe just before dark in the slough itself, often lining the water's edge in an almost solid mass 10 or more feet wide.

The dates of these flocks for 1934 were:

Robins—September 15-October 15.

Starlings—September 28-October 30.

Blackbirds—September 15-October 18.

Nature Study Society of Rockford, Ill.

In addition to its usual activities this year the Nature Study Society of Rockford, working with the County Superintendent of Schools, is sponsoring a contest among the children of the rural schools of the county on the general subject "Birds About Our Homes and Schools," first, second and third prizes being given to the pupils turning in the best papers and a set of Audubon Bird cards to the school turning in the largest number. In order to bring this to the attention of the community the Society is presenting a series of talks over the local radio station on Saturdays when the children can come to the studio and answer questions in regard to the various phases of nature. The Society hopes in this way to make the rural children more nature conscious.

In the early Spring, Apple River Canyon, a new state park of rare beauty in the northern part of the state was visited and in October the White Pines State Park near Oregon. At both of these places our native trees were studied.

The State Fish Hatchery northwest of the city offers bird students a splendid opportunity of studying the ducks and the waders, and also offers the birds a welcome sanctuary during the hunting season. On May 14 two new species were seen there, the Marble Godwit and the Hudsonian God-

wit, the first records for this vicinity. At the Society's meeting held there on May 5, twenty-three different kinds of birds were seen.

On January 21 a large flock of Redpolls and Goldfinches were seen on the flats of the Kishwaukee River southeast of the city and on August 29 Egrets were seen at the same place. In August the song of the Field Sparrow was heard for several nights in the middle of the night.

This year the Society will take part in the annual bird census covering the forest preserves surrounding the city and rounding up at noon at the Kilbuck Preserve for a steak fry and comparison of lists. Last year eighteen kinds of birds were seen, but we hope for a longer list this year. The following notes from Rockford are from members of our society.

FRANCES S. DOBSON.

My Cardinal Family

For many weeks last winter a pair of Cardinals visited my feeding shelf daily, but late in the Spring the male came alone, evidently having lost his mate. He returned in late July with a new mate and on August 3 brought two nestlings to the shelf, cracked seed for them and fed them. The next day he came again with the babies, stood between them feeding first one and then the other. On August 6 he seemed to be very much excited and uttered warning notes to the babies on the shelf. Upon investigation a young Oriole was seen on a nearby branch waiting for a chance to come and feed. The Cardinal showed very plainly that he wanted no intruders. On August 7 the whole family came and fed together and on the 8th, the male and female came alone, the male being very attentive to his mate twice giving her a cracked seed. On August 9 the male came alone with the babies who fed themselves for the first time. On August 12 after missing them for a few days the babies were seen in a nearby apple tree apparently able to care for themselves. On September 2 when the male came to the shelf he showed signs of moulting and exhibited a bad temper, chasing his mate from the shelf. On September 14 the female came with a new nestling. She had started to moult and looked very ragged while the male seemed to be getting new feathers. For the next few days both came with the new baby. By September 20 the baby was able to feed himself and after September 25 the family disappeared and have not returned to the shelf so far this winter.

MRS. M. T. LONG, Rockford, Illinois.

What's In a Wren's Nest

Early in May a pair of Wrens hovered around the yard evidently seeking a good nesting place. Finally a small box nest was hung on a wire clothesline, not a very good place but seemingly the only available one. Mrs. Wren began at once to carry things into the box keeping this up off and on all summer but never using the nest. Perhaps a pair of Robins nesting nearby, by their continual worrying, kept the Wrens from nesting. Finally when the Wrens gave up coming to the box it was taken down and the following articles taken out—638 sticks, 21 nails, 23 hairpins, 36 pieces of wire, 2 safety pins, 2 common pins, 1 tack, 6 brads, 1 paper clip, 1 piece of buckle making a total of 731 articles stuffed into that small box.

Have you other records of Wrens making false nests such as this?

ELIZABETH MACGREGOR, Rockford, Illinois.

"Seen From My Window"

A good many birds are feeding at our station which is in plain sight of our living room window—the Nuthatches, Titmice, Chickadees, Downy and Hairy Woodpeckers, two Carolina Wrens, an occasional Cardinal, the Brown Creeper, Blue Jay, Junco and the ever present English Sparrows, gobbling the food and doing their best to drive the other birds away.

We have suet boxes hanging to the bushes and small trees near our bay window, also a small log with holes in it and packed with suet. This is suspended by a wire at one end and, we thought, offered no foothold for the Sparrows, but hunger has sharpened their wits and they can fly straight to the log, light on the bark while they pick out the suet just as the Nuthatches do. If they would only migrate to some "fairer clime."

A few rods from the house a Screech Owl has occupied a hollow tree for some years. Often we see him sitting in the opening looking as meek as a kitten, but if we stop he is sure to dart into his hole out of sight for the time being.

One day this December we were surprised and delighted to have a Robin visit us, hopping around on the ground just as though it were early spring and disregarding the snow which covered the ground.

H. S. R., Rockford, Ill.

Hinsdale Nature Club

The members of the above organization made a combined list of observations of birds during the spring and summer of 1934. They listed one hundred and twenty-nine species and subspecies, it was announced by Glen B. Kersey. Other organizations throughout the state could derive a great deal of pleasure by adopting such a plan.

Barrington Bird Club

The Barrington Bird Club has suffered a reduction in number during the depression, but the enthusiasm of the remaining faithful has grown in compensation. The ten meetings of the year have been well attended.

The Village Park Board gave the club permission to use a section of the new north park for a bird sanctuary. A small stream runs through this area, and a few large willow trees border on it. Two hundred and eighty-nine shrubs and vines have been set out this fall. Mr. John Bell, landscape architect, who is a member of the club, took charge of the planting, and the village furnished the labor. We feel this undertaking marks a big step in advance. The original sanctuary, situated on the borders of the cemetery, was constantly being disturbed, and our plantings were cut down. Supervision is promised for the new location. The money for the planting was raised at a very pleasant lawn fete given in September at the home of Mr. and Mrs. Reuben Plagge.

Percy MacKaye's beautiful bird masque, "Sanctuary," is to be presented by the club next summer, on the grounds of Mr. and Mrs. Alexander Reichmann, where an appropriate planting simulates a woodland glade. Mrs. R. R. Hammond will again direct the production—first given by the club in 1928.

Fourteen members and friends appeared for the early morning bird walk, May 20, in the woods of Biltmore, north of Barrington. A smaller number walked and drove in the snow on December 23 for a Christmas bird census.

A pair of Chickadees nested in a birch-bark Wren house hung about twelve feet from the ground in a small elm tree which is planted on the edge of the drive into our garage, which is under the north end of our house. This tree not only overhangs the drive but is not more than two rods from the garage and kitchen doors. The drive is in constant use. It was a surprise to find the Chickadees had taken possession. We saw the parent birds taking food into the box, but kept no records. The young birds got away without being seen, but we hope safely. A Chickadee was first seen going into the box on April 2. They were in and out frequently during the last two weeks of the month, then, after the first of May, not seen or heard for weeks.

The first Yellow-throated Vireo we have had reported from Barrington was seen here on May 9. One was also seen by us on August 29, in the same place.

White-crowned Sparrows were here in unusual numbers from May 9 to May 13, twelve being seen feeding in a small space before the house where food had been scattered for them.

Ducks were present, last spring, in the ponds and lakes near by so that I saw eight species where I would ordinarily see two or three.

Coots were seen in increasing flocks on Lake Zurich from March 30, when there were about 75, until April 27, when there were hundreds. There was something very amusing about these compact flocks of very black little birds, riding often close to the shore where cars were passing.

More Great Blue Herons than usual visited our territory, our last record being November 11.

My most surprising experience in many years was the discovery of a new bird, just outside the pantry window, December 8. After careful study he was identified as a Yellow-headed Blackbird in winter plumage. The head was dull buffy, brighter when the sun struck it. The throat and upper breast were the same color. The feathers at the base of the bill dusky, a streak of dusky brown separating the buff of the head from that of the throat. No white was visible on the wings, and that probably detracted from the apparent size, as the bird seemed considerably smaller than those I have seen in summer plumage. In the bright sunlight the back appeared very black, but in dull light the black had a distinct brownish cast. Wavy streaks of dull white extended down the breast below the buffy-orange of the upper breast. A smaller brownish-black bird appeared within a short time, and remained with the first for four days. This was doubtless a female. The male carried the right wing partly spread and drooping, and the primaries were about an inch shorter than on the left wing.

The birds were attracted by the food we keep scattered about. The male bird stayed until December 16. He fed constantly on our window shelf, surrounded by English Sparrows, occasionally pecking at them in an ineffectual but exasperated manner. I should have liked to try trapping him for banding, but feared to drive him away.

On December 19, in a snowstorm, looking out from the same windows, we saw a dejected-looking Red-winged Blackbird in a bush close to the house. He was quite black but there seemed to be very little red in the wing-patch, which showed only the yellow most of the time.

We have had Red-winged Blackbirds come to our feeding station once before, in a spring snowstorm, but we have never before seen Yellow-headed Blackbirds nearer than Honey Lake, five miles distant, and that was many years ago. Since then we have seen them only at Grassy Lake in the Fox river.

A member of our club who lives several miles northeast of us reports having seen a Red-winged Blackbird on December 18 and 19, possibly the same we saw. A female Cardinal was here for a few days following November 24.

MRS. ROBERT WORK, Barrington, Ill.

It Pays to Plant for the Birds

In June, this summer, having to spend eleven days in the Wheeling Hospital, following an accident, it was my good fortune to have a Mulberry tree, in full fruit, not more than ten feet from my north window.

I identified fifteen kinds of birds and saw two kinds that I never did find out what they were. Four of my list were voices only, heard along the Des Plaines River just back of the hospital grounds where the forest preserve comes up—they were the Crow, Ring-necked Pheasant, the Bob-white, and Nighthawk. The five species that fed in the tree, morning and evening, were: a Blue Jay, Robins, Cedar Waxwings, Flickers, and, on the ground, the Grackles. Four species were observed in the tree, but I did not see them eat the berries, the Yellow-billed Cuckoo, the Goldfinches, a Hermit Thrust (on the ground) and a Grey-cheeked. Then, I had a Brown Creeper on one occasion and a Song Sparrow once. I especially appreciated the opportunity to study at close range and for long periods of time the behavior of the Waxwings. I was amused to watch a Flicker perching and to observe the behavior of the other birds when the Jay came, commanding, into the territory. Dr. Larson claims he planted that tree fourteen years ago, especially anticipating a patient from the Barrington Bird Club.

Read at the December meeting of the Barrington Bird Club.

MRS. C. R. STOUT.

Evanston Bird Club

Like all other organizations, the Evanston Bird Club has felt the loss of many members the last few years, but in spite of this discouragement, it has been able to carry on its usual activities. Quite a number of new members were recorded last Spring, most of them having come in through interest in the Bird Walks.

Our Board of Directors suffered especially this last year, two of our oldest and most valued members having been taken by death. Dr. Ernest W. Burch and Miss Blanche Caroway died in November 1933, leaving vacancies most difficult to fill.

At our annual meeting in February last year (1934) one new member, Mrs. Clarion D. Hardy, was elected. Mrs. Hardy also consented to become chairman of the Bird Walks committee. Mrs. J. Benton Schaub, new secretary-treasurer, also became a member of the Board, ex-officio.

The balance in our treasury has been augmented by several new contributing memberships from organizations. The Lincolnwood Mothers Club is one and the Orrington school another. The latter is unique and the

only one of the kind we possess. The Garden Clubs are our best allies, the three Evanston clubs and the Wilmette club being listed as contributing members. This is fine support from clubs of kindred interests.

Our affiliation with the National Association of Audubon Societies as well as the Illinois Audubon Society has been continued. Our annual contribution to the Evanston Public Library for the purchase of bird books was made as usual. Appreciation of this help from the club was voiced in a very kind letter from the librarian, Miss Wright.

In March the president sent out her annual Spring letter, reminding members (and possible ones) of the need of financial as well as friendly support, making a special plea for greater interest in the welfare of our native wild birds.

In April an informal open meeting of the club was held in the Art Center room of the Library. Mr. Jesse Lowe Smith of Highland Park, so well known as an educator who had incorporated nature study into his everyday program of work, was the principal speaker. His exquisite flower slides, together with selected bird slides belonging to the club, combined to give a delightful "Pre-View of Spring," much enjoyed by the audience. Mr. Smith had been an old friend of the Bird Club for many years, in fact was the speaker at its first meeting in Roycemore School auditorium in 1919. We now treasure the memory of this especially pleasurable evening as it proved to be his last public appearance. The shocking news of his death came only a week later.

Our vice-president, Mr. J. Ralph Wilbur also presented a goodly number of his beautiful autochrome landscapes, which were greatly admired.

Bird Talks, illustrated with slides, were given numerous times from February to May, principally by Mrs. Schaub and Mrs. Pattee, to Garden Clubs, Schools and Church organizations. Mr. Pattee, assisted by his wife, also gave an evening with talks and pictures to the Boy Scout Masters of Evanston. The Bird Walks, which are one of our most popular and successful activities, were carried on weekly from April 20th to the end of May, the attendance varying from 12 to 20. The last day was spent (with picnic lunch) in Deer Grove Forest Preserve. The day was fine and we were pleased to find many Bobolinks and Red-wings in full song, mating and nesting, Crested Flycatchers at their nest hole and a pair of Baltimore Orioles building their beautiful hanging nest, an unusual experience to most of us. Of course there were also many other birds. On the first trip April 20, the only warblers seen were Myrtles and Palms, with the exception of one Prothonotary, a remarkably early migrant according to our records. Altogether we considered it the best Spring migration for several years.

In June copies of the new booklet, "Birds of the Chicago Region," published by the Chicago Academy of Sciences, were distributed to members.

BERTHA PATTEE.

Notes From Evanston

Cardinals nested as usual in this neighborhood, Evanston, Illinois, though not in our own yard. Young from at least two families were brought to the feeding shelf to learn to eat sunflower seed.

Our old tenant, the Crested Flycatcher, nested elsewhere this summer, although he was seen on and in the Von Berlepsche box for several days at the end of June. Perhaps the presence of a Starling accounts for his sudden departure.

Chickadees nested in June in our next door neighbor's yard, in a knot hole in a young tree. We saw only two of the young.

Wood Thrushes have always nested near us until last year when we missed them especially on account of their lovely song. So we were delighted to find them nesting again in our other neighbor's big oak, well up in the tree. Young were being fed the 13th of June. On the 20th one young Thrush was off the nest and soon another came. We saw them being fed numbers of times. July 1st discovered the same pair working on a new nest in our own wild tangle very near the house. The young came in due time, cared for by devoted parents. But they met a tragic end. In a few days the young were gone with only feathers in the nest and below it to tell the tale. We are quite sure that the Screech Owl that we had heard at night was responsible for the murder. It could not have been a cat from the position of the nest.

A Fox Sparrow was entertained on the feeding shelf from December 8 to 12. He ate suet, sunflower seed and crumbs; the morning of the 13th was bitter cold, 15 above zero, and the Fox Sparrow did not appear. We hope he has gone to a warmer clime.

BERTHA PATTEE.



Photograph by A. M. Bailey

"CARDINALS NESTED IN THE NEIGHBORHOOD"

Starling in Lake County

On Christmas Day of 1925, two Starlings were trapped and banded at Waukegan, Illinois. These were the first of this species to be recorded in this district. In 1928 a nesting pair was observed in a site about five miles northwest of Waukegan. In 1929 fifteen nests were found and several moderate sized flocks were observed in the fall and winter. In 1931 one more was trapped; in 1932 twenty-three were banded; and in 1934 they were common and a pest with the cherries. The old birds brought the young to the trees, and twenty-eight young were trapped and banded, several more being killed. About the first of December, a flash-light raid was made on a blackbird roost in a swamp, which resulted in two Red-wings and two Starlings; two days later a flock of about two thousand were observed near this roost. Several were about my banding station during the last of December, but they were wary of traps. Six were trapped in January.

W. I. LYON.

Fer Billy an' Fer Me

Dad, your gun is in its case,
Your rod is on the wall—
Daddy, when you shooted ducks
Did you shoot 'em all;
When you killed the deer and fox
An' cut the balsam tree,
Couldn't you a' left a few
Fer Billy an' fer me?

Dad, your factory on the creek—
Makes a lot o' noise,
Churnin' up the water
Where you played when you was boys;
Daddy, when you built it there
Couldn't you, maybe,
Jest a' saved a swimmin' hole
Fer Billy an' fer me?

Daddy, wouldn't you suppose
That if you really tried
You could save a little woods
An' fields an' countryside?
Kind o' keep a' savin' up—
You an' Uncle Lee—
Just a little out-of-doors
Fer Billy an' fer me?

F. W. LUENING.

(A clipping from an unknown publication)

Christmas Census of 1934


Many members made hikes during the holidays to observe our wintering birds and the majority found birds "few and far between." We hope that the taking of the census will be an annual affair that we may, in time, have the compilation of many years' work. This past holiday, with its snow and ice and cold, disagreeable winds, was not favorable for bird observers. Some members in announcing their results plaintively mention hikes of a few miles' distance along Salt Creek, Forest Preserves, Thatchers wood, and elsewhere with grand totals ranging from no birds observed to three or four. Consequently, our list of return does not indicate the numbers of Audubonites who were afield. Those who observed ten or more species had better success than most. The compiled list shows that 60 species and subspecies were observed in the Chicago region. There is no question that if a special effort is made next season the list throughout the state can be greatly increased.

The observations are grouped according to counties. It will be our policy not to include in this list extreme rarities observed unless specific data for the record is given, due to there being so many chances for error in sight observations. Where several observers have covered approximately the same region, the highest total for one worker should be given in order to avoid duplication. Likewise, if an observer makes several trips in the same general vicinity, the highest number of a given species for one day should be listed. That is, if five Cardinals were seen one day and eight the next, the number listed should be eight.

Chicago, Cook Co., Ill. (Lincoln Park and Lake Front) Jan. 2; 9:00 to 11:00 A. M. Overcast with chill wind; ground covered with snow. Am. Golden-eye 15; Old Squaw 5; Hooded Merganser 2; Am. Merganser 12; Herring Gull 2,000+; Ring-billed Gull 100+; Starling 2. Total—7 species.—C. T. Black and R. B. Anderson.

Blue Island, Cook Co., Ill. (Region near Blue Island) Dec. 25; 2:30 to 4:00 P. M. Cold with southwest wind. Bob-white 1; Downy Woodpecker 2; Blue Jay 1; White-breasted Nuthatch 1; Cardinal 2; Slate-colored Junco 15; Tree Sparrow 25. Total—7 species.—Karl Bartel and Alfred N. Reuss.

Winnetka, Cook Co., Ill. (Observed at feeding table) Dec. 29. Downy Woodpecker 2; Blue Jay 2; Starling 1; Cardinal 2. Total—4 species.—V. Roy West.

 **Chicago, Cook Co., Ill.** (Lincoln Park, Rosehill Cemetery and Glenview Forest Preserve) Dec. 25; ground covered with snow. Am. Bittern 1; Am. Golden-eye 14; Am. Merganser 12; Red-shouldered Hawk 1; Sparrow Hawk 3; Pheasant 1; Herring Gull 150; Ring-billed Gull 100; Mourning Dove 1; Downy Woodpecker 2; Crow 1; Chickadee 25; White-breasted Nuthatch 2; Robin 3; Starling 35; Slate-colored Junco 4; Tree Sparrow 3; Song Sparrow 1; Snow Bunting 2. The Bittern was flushed on three occasions just east and south of the Lincoln Park Bird Sanctuary, while the Dove was on a manure and leaf mound, with the Snow Buntings and English Sparrows near Montrose Ave. Total—19 species.—Clarence O. Palmquist.

Summit, Cook Co., Ill. (Two miles down the Des Plaines River and return) Dec. 23. Cold and partly cloudy. Ring-billed Gull 6; Screech Owl 1; Hairy Woodpecker 1; Downy Woodpecker 2; Prairie Horned Lark 2; Blue Jay 2; Crow 6; Cardinal 2; Slate-colored Junco 4; Tree Sparrow 1; Song Sparrow 1. Total—11 species.—Edward Hulsberg.

Barrington, Cook Co., Ill. (Small group from Barrington Bird Club on short hike over snow-covered fields) Dec. 23. Cold and partly cloudy. Red-tailed Hawk 2; Am. Rough-legged 1; Pheasant 7; Hairy Woodpecker 1; Downy 2; Crow 7; Slate-colored Junco 4; Tree Sparrow 1. Total—8 species.—Mrs. Robert Work.

Berwyn and Riverside, Cook Co., Ill. (Observed in villages) Dec. 23. Downy Woodpecker 1; Carolina Wren 1; White-throated Sparrow 1. Total—3 species.—E. T. Barody.

Park Ridge, Cook Co., Ill. (Along the Des Plaines River) Dec. 24. Am. Golden-eye; Red-tailed Hawk; Pheasant; Herring Gull; Long-eared Owl; Kingfisher; Flicker; Hairy Woodpecker; Downy; Crow; Chickadee; Titmouse; White-breasted Nuthatch; Brown Creeper; Starling; Meadowlark; Cowbird; Slate-colored Junco; Tree Sparrow; Song Sparrow. Total—20 species.—Donald Duncan, Frederick Wadsworth, Nick Collias, and Aulden Coble.

Evanston, Cook Co., Ill. (At feeding tray in Evanston and west of Evanston along Des Plaines River and Chicago River) Dec. 25 and Jan. 1; temp. 30° and 10°. Snow and ice. Hairy Woodpecker 2; Downy Woodpecker; Blue Jay 1; Crow 3; Chickadee 1; White-breasted Nuthatch 1; Starling 50; Tree Sparrow 20. Total—8 species.—Bertha and Fred Pattee.

Waukegan, Lake Co., Ill. (Majority observed in yard near banding station and nearby shore of Lake Michigan) Dec. 23 to Jan. 1. Great Blue Heron 1; Red-head Duck 2; Lesser Scaup 200; Am. Golden-eye 7; Bufflehead 1; Old Squaw 30; Am. Merganser 12; Red-breasted Merganser 10; Marsh Hawk 1; Bob-white 7; Pheasant 7; Coot 2; Herring Gull 700; Ring-billed Gull 3; Screech Owl 1; Flicker 1; Red-headed Woodpecker 1; Hairy 1; Downy 3; Blue Jay 4; Crow 6; Chickadee 1; White-breasted Nuthatch 2; Brown Creeper 1; Robin 2; Northern Shrike 1; Starling 42; Red-wing 5; Rusty Blackbird 1; Bronzed Grackle 2; Cardinal 4; Goldfinch 1; Slate-colored Junco 50; Tree Sparrow 48; Fox Sparrow 1; Song Sparrow 1. Total—36 species.—Wm. I. Lyon.

Hinsdale, Du Page Co., Ill. (Observed from window during the holidays.) Hairy Woodpecker 1; Downy 1; Blue Jay 1; Robin 1; Bronzed Grackle 1; Cardinal 2. Total—6 species.—G. G.

Lisle, Du Page Co., Ill. (Morton Arboretum) Dec. 30; 9 A. M. to 1 P. M. Temperature 30°; fair, slight northeast wind, snow on ground; observers together. Red-tailed Hawk 1; Pheasant 3; Blue Jay 1; Crow 8; Chickadee 2; Titmouse 2; White-breasted Nuthatch 1; Brown Creeper 1; Golden-crowned Kinglet 2; Cardinal 2; Purple Finch 2; Slate-colored Junco 15; Tree Sparrow 15; Song Sparrow 2; Lapland Longspur 1. Total—15 species.—E. T. Barody and Frank A. Pitelka.

Rockford, Winnebago Co., Ill. (Forest Preserves southeast of city) Dec. 26; 10 A. M. to 3 P. M. Clear and cold; temperature below zero. Observers in group. Red-bellied Woodpecker 1; Hairy 2; Downy 6; Blue Jay 2; Crow 4; Chickadee 4; Tufted Titmouse 4; White-breasted Nuthatch 4; Brown Creeper 2; Starling 20; Cardinal 2; Slate-colored Junco 4. (Dec. 22. Screech Owl 1; Carolina Wren 2; same locality.) Total—14 species.—Helen Remington, Lillian Dales, Elizabeth MacGregor, Cousie Fox, and Frances S. Dobson.

Batavia, Kane Co., Ill. (Daily hikes of few hours each along Fox River and field to the west) Dec. 25 to Jan. 1. Cold, for most part; ground snow-covered. Am. Golden-eye; Bufflehead; Am. Merganser; Cooper's Hawk; Red-shouldered Hawk; Sparrow Hawk; European Partridge. Pheasant; Bob-white; Screech Owl; Flicker; Red-headed Woodpecker; Hairy; Downy; Blue Jay; Crow; Chickadee; Titmouse; White-breasted Nuthatch; Brown Creeper; Starling; Meadowlark; Redpoll; Pine Siskin; Slate-colored Junco; Tree Sparrow; Song Sparrow; Lapland Longspur; Snow Bunting. Total—29 species.—Gordon Pearsall.

Ottawa, La Salle Co., Ill. (Along the Illinois River to Utica and return by I. M. Canal and Buffalo Rock) Dec. 26, 28, and 30. Great Blue Heron 1; Mallard 14; Am. Golden-eye 11; Bufflehead 1; Am. Merganser 16; Red-tailed Hawk 1; Am. Rough-legged Hawk 1; Bob-white 12; Coot 12; Herring Gull 35; Ring-billed Gull 15; Mourning Dove 1; Screech Owl 1; Horned Owl 2; Barred Owl 1; Short-eared Owl 1; Flicker 1; Red-headed Woodpecker 1; Hairy 3; Downy 10; Horned Lark 2; Blue Jay 6; Crow 49; Chickadee 16; Titmouse 23; White-breasted Nuthatch 4; Brown Creeper 1; Winter Wren 6; Carolina Wren 5; Golden-crowned Kinglet 1; Northern Shrike 1; Starling 3; Redwing 600; Cardinal 14; Purple Finch 10; Goldfinch 12; Slate-colored Junco 200; Tree Sparrow 350; Song Sparrow 25;. Total—39 species.—Jeff Drury and Frank Bellrose, Jr.

Centralia, Marian Co., Ill. (Compiled list of several observers) Dec. 23 to Jan. 1. Marsh Hawk; Sparrow Hawk; Prairie Chicken; Bob-white; Pheasant; Mourning Dove; Screech Owl; Red-headed Woodpecker; Hairy Woodpecker; Downy Woodpecker; Blue Jay; Crow; Chickadee; Titmouse; Brown Creeper; Winter Wren; Mockingbird; Bluebird; Meadowlark; Cardinal; Slate-colored Junco; White-throated Sparrow. Total—22 species.—M. C. Lichtenwater.

Port Byron, Rock Island Co., Ill. Dec. 23 to Jan. 1. Weather cold with ground snow-covered. Am. Roughlegged Hawk; Bob-white; Mourning Dove; Screech Owl; Horned Owl; Red-bellied Woodpecker; Red-headed; Hairy; Downy; Blue Jay; Crow; Chickadee; Titmouse; White-breasted Nuthatch; Brown Creeper; Meadowlark; Cardinal; Slate-colored Junco; Tree Sparrow. Total—19 species.—John J. Schafer.

Fiatt, Fulton Co., Ill. (Notes compiled from three trips of about seven miles each in region surrounding Fiatt) Dec. 25, 8:30 A. M. to 12:10 P. M.; Cloudy, visibility poor, temperature 26 to 28 degrees; fresh snow with southeast wind. Dec. 30. 8:30 A. M. to 1:15 P. M.; clear with temperature 22 to 32 degrees. Jan. 1, 12:45 P. M. to 5:15 P. M. Clear, wind northwest, temperature 18, dropping to 16; ground partly covered with snow. Red-tailed Hawk 3; Sparrow Hawk 1; Screech Owl 2; Flicker 10; Red-bellied Woodpecker 1; Hairy 5; Downy 13; Blue Jay 14; Crow 11; Chickadee 78; Titmouse 27; White-breasted Nuthatch 15; Bluebird 7; Starling 160; Cardinal 16; Goldfinch 7; Slate-colored Junco 76. Total—17 species.—Harold Ault.

Field Cards

Members will find the Field Cards of the Audubon Society and the Chicago Academy of Sciences a great help in keeping their records. As the birds are listed according to the order followed by the check list of the American Ornithologists' Union, it would aid the editor if all reports were submitted on such cards, with a letter giving additional data. The cards are available at the Audubon Society office for ten cents a dozen.

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Number 26
1936

PUBLISHED BY
THE ILLINOIS AUDUBON SOCIETY
The Chicago Academy of Sciences
Lincoln Park at Center Street
Chicago, Illinois



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THE
ILLINOIS AUDUBON SOCIETY
For the Protection of Wild Birds

Affiliated with
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Lincoln Park at Clark and Center Streets
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THE AUDUBON ANNUAL BULLETIN

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PUBLISHED BY THE
ILLINOIS AUDUBON SOCIETY
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CONTENTS

The Chicago Beach: In Memoriam.....	<i>W. J. Beecher</i>	5
Interesting Records Obtained Near Park Ridge, Illinois	<i>Donald Duncan</i>	8
A Day With the Pinnated Grouse.....	<i>F. R. Dickinson</i>	12
Back Yard Aviary.....	<i>W. Connell</i>	15
Conservation: Notes and Comment.....	<i>C. W. G. Eifrig</i>	16
Wildlife Sanctuaries in Illinois.....	<i>C. W. G. Eifrig</i>	17
Early Experiences in Imitating Bird Songs..	<i>Edmund F. Hulsberg</i> ...	19
The Morton Arboretum a Bird Sanctuary...	<i>Orpheus Moyer Schantz</i> .	21
December (Chicagoland)	<i>W. Foster Hayes</i>	23
1935 Nature Diary.....	<i>Dr. T. E. Musselman</i> ...	24
Notes from the West.....	<i>Mary Cooper Back</i>	29
Our Robins at Christmas Time.....	<i>Lotta T. Melcher</i>	31
Bird Notes from Evanston.....	<i>Bertha T. Pattee</i>	31
The Prairie Sharp-tailed Grouse.....	<i>Alfred M. Bailey</i>	33
Nostalgia in Florida.....	<i>Edward R. Ford</i>	35
Evanston Bird Club.....	<i>Bertha T. Pattee</i>	36
Notes from the Barrington Bird Club.....		37
Notes from Fulton County.....	<i>Harold Ault</i>	39
Warblers of Rock Island County in 1935...	<i>Elton Fawks</i>	40
The Mockingbird and Bald Eagle in Rock Island Co., Ill.	<i>John J. Schafer</i>	41
Christmas Census of 1935.....		42



Photograph by Alfred M. Bailey

THE PIPER OF THE DUNES

The Piping Plover are becoming rare in the Chicago Area because of the loss of breeding places. They like exposed sandy shores. This fearless little creature tried to brood her young while held in a man's hand

THE AUDUBON BULLETIN

1936

The Chicago Beach: In Memoriam

By W. J. BEECHER

Long before she acquired fame as the great mid-western focus of transportation and commerce, Chicago was hard at work earning it on other grounds. Ages ago a mighty flood of birds, streaming northward to reclaim the land given up by the glacier, naturally converged at this geographical crossroads, following our oak ridges, dunes and beach up the west shore of the lake. Inevitably this was to become one of the great flyways and highways of the continent.

Generations of aboriginal men have fared along this broad pass; a race of mound builders has written its brief history in the shifting sand and vanished with its fabulous civilization. Across the span of years many have known the peculiar charm of this low flung shore: the dazzling spread of dune and strand, reaching in lonely emptiness to the level horizon; the blue immensity of water and sky, shadowing together to the verge of the world. And often under its spell, travelers have succumbed to an illusion of green woodlands with running streams, where there was only sand—grim hallucination of the mirage. But never in those forgotten days—unless it be the fabled vision of the dying Marquette—did anyone dream that a mighty city would some day rear its ivorine colonnade here in monumental tribute to the aspirations of men; no one ever really supposed that the limitless span of beach would at length be limited.

Our early naturalists knew the soul-filling loneliness of the beach. Many a starlit night, atop some low dune, their driftwood fires stabbed fitfully at the fathomless abyss; many a dog-tired evening they were lulled to sleep by the contralto quaver of the black-bellied plover and the mournful cry of the willet, drifting up with the soothing pulse of the Inland Sea.

Little of all that remains today. The growing city drove its piles and heaped its rocks down all the long reach of shore—a barrier at last against the raids of the spuming lake. Far back from the present shore, extended in places a half-mile lakeward, traces of dunes still exist; haughty residences stand on solid ground where breakers used to flash.

Within the city may be found, at the foot of Montrose street, the last remnant of beach suitable to the needs of our rarer shorebirds—nor is this part of the original shore. By some whim of Nature, the crude forces of construction and the inherent property of the in-

fertile clay have combined in the creation of an ecological association similar to that of a tidal flat. Superficially, it is a particularly barren waste, overgrown with clumps of weeds and grasses and sprawling mats of purslane, crouching low to the ground like the group of weathered buildings to the north. Yet a few naturalists and bird students find the place congenial, leaving the sleeping city in the gray of morning to feel the pulse of life along one of Nature's vital arteries. For this desolate place is unequalled by any other in the region for the variety of its bird-life during the migrations.

Strolling along the shore some morning at the height of the migration, you would surely have met with this oddly assorted band: the elderly Ornithologist with his mild, scholarly face and battered old field book; the Lawyer with his brief case, who had learned so well to manage his glass with one hand; others, too, who came and went like the ebb and flow of the tide. Sometimes in my own wanderings near the Bird Sanctuary I would chance upon one of them, and hear again about the Ornithologist at Montrose—about the Baird's sandpipers and laughing gulls and lapland longspurs he had observed there. At last I decided to see for myself. . . .

It was one of those balmy October mornings of Indian summer. The sun was just appearing beyond the rim of the lake, and landward the rose-flushed metropolis was beginning to emerge from its misty veil. Meadow-larks were fluting in the distance; the dreamy songs of white-throats drifted from every shrub-thicket. I found the Birdman scanning a brush heap at the foot of the "dump hill."

"Hello!" I said, after stalking him, unheard, within ten feet; "anything interesting in there?" He looked around, caught the glint of my binoculars and returned the password with interest. No, nothing exciting—only a few Tennessee warblers and juncos. A moment sooner I might have added a purple finch to my notes. He began to move slowly across the flat, dotted here with clumps of amaranth and crawl grass—and I found myself following, plying an endless array of questions.

Was it really true he had seen glaucous and laughing gulls—that buff-breasted and Baird's sandpipers had been abundant? Yes—all as plain as I standing there; beginning in August they had seen Baird's at least fifty times—and last year the willets—. Here, suddenly, he broke off and held up his hand, listening.

"Hark!" Both glasses swung on a tiny sandpiper, gleaming jewel-like across the cloudless blue. "Maybe only a pectoral, but I suspect that's our Baird's sandpiper right now!" I was all for following, but dared not leave this new friend and guide, who knew the flat so well.

Off to the right on the ground, a harsh churring call. As we began to stalk it, I searched my memory; where had I heard that call last—under conditions so vastly different? It had been on a weedy bit of open prairie—a bitter day and snowing. All at once recollection came and at the same instant the ground upheaved before us; climbing the sky, an excited flock of sparrow-like birds went whirling mer-

rily away, like autumn leaves before the north wind—lapland long-spurs!

Farther back, where the ground grows lumpy and supports an abundant crop of sweet clover, the lawyer was beckoning. Approaching cautiously, we found ourselves in sparrow "territory"; here, darting about on the ground, and perching in view occasionally, we found swamp, field and chipping sparrows—these birds of varied habitat preferences traveling blithely together, like a gypsy band.

Across the flat to the low beach now. With plaintive chorus, a flock of killdeer rose from a shallow pond, leaving a semi-palmated plover hurrying ahead of us on foot; a passing squadron of black-bellied plovers banked sharply with a flash of white underparts and black axillars to alight far up the beach. And following their course I saw something I had never previously observed south of Waukegan—a congregation of several hundred of the larger gulls, resting on the beach. And far out in the hazy calm an immense raft of the smaller Bonaparte gulls lay at anchor, their twanging calls drifting landward at intervals.

Circling to bring the sun behind us, we approached slowly until we were scarcely a hundred feet from the nearer flock. By now the keen observations and almost meticulous identifications of my companions had convinced me that here were two superior field men; the Ornithologist pointed out the pink feet and orange-tipped bills of the larger herring gulls, which were in majority, and directed my attention to a few very dark first year birds. This was wonderful!

So we followed the beach that sunny morning, discovering a new world, quite forgetful of the present—till at last we parted to return to desk or street; but not before I had seen a Baird's sandpiper at fifteen feet, and flushed him to be sure of the dark tail coverts.

I returned often after that. Accustomed to the confiding seclusion of inland haunts, the solitude of Nature along this shore was a pleasant change. The long sweep of strand, the white curl of combers, the melancholy cries of the birds—all were part of its profundity—reflecting its varying moods.

There were mornings when the booming surf had heaped the strand high with a bountiful repast, and a billowing storm of screaming gulls flocked greedily to the feast. Mornings when the rain-torn sky was filled with tatters of "scud," and the raging lake hurled her swells in upon the slimy rocks with the sullen roar of thunder, driving fountains of spume thirty feet into the air—marbling and gushing through all the crevices.

And again there were crisp autumn mornings when the startled band of sanderlings alongshore took wing with a shower of elfin pipings like crystalized icicles. It was on such a morning—October 30th—that we first caught the mellifluous barking of southbound geese, and saw the long line bent in a round V against the distant sky. Nearer they came, their immaculate markings limned in the clear light—the rare snow and blue geese! Clanging, they swung abreast, breaking ranks and reforming again—finally straining away toward the Illinois

river, a slender ribbon streaming southward. Within two hours that morning, more than six hundred geese passed, all of these two kinds.

But every story has an ending. With the coming of the chill November rains, arrived also the first straggling flocks of winter ducks—last episode of the bird year. “Never mind,” we told each other, “perhaps there will be snowy owls again this year; and finally spring will come again.”

Alas for our hopes! With November, too, we watched the invasion of our homely weed patch by a caravan of trucks, bearing an army of W. P. A. men;—they were going to push through another road, and add a new section to the Park. Long delayed, this seemed to be the last chapter.

* * *

So with a regret we watch the passing of our last bit of real shore, just as we have many another bird wonderland, conscious of our great incapacity to prevent it. “Must it be?” we ask ourselves; “Do the bathers and picknickers need this bit of shore more than the birds? Cannot both use it at the same time?” And a very small voice, speaking with conviction, answers in spite of us, “No.”

But the impulse that stirs the birds in their endless migration is very old, and may not be easily affected by the passing of another beach, however ideal. Within a century our front yard has completely altered—yet the birds continue to use it, even perching occasionally atop the loop buildings. And it is likely—with few exceptions—that all species formerly recorded from the shore, still occur today with some regularity, if we can match it with the regularity of our too casual observation.

When all is said it is we who must be affected most, when the rare species no longer find congenial to a little stop-over, enroute. Our knowledge of how it fares with these birds and of their relative abundance will be less; our notes will eventually cease to embrace them. . .

Interesting Records Obtained Near Park Ridge, Illinois

In hikes taken during the past five years along the Des Plaines River near the dam at Devon Avenue and over the adjacent country several interesting records have been obtained, interesting in that they represent the occurrence of uncommon species or of irregular visitants which have passed through the area. Perhaps the inclusion of some of the following species in either of these two categories may be questioned but at least so far as observations made on that restricted area indicate, they fall into one of the two classes named. All, unless otherwise noted, are sight records. The writer is indebted to Aulden Coble and Frank Wadsworth for some of the records which have been used in this compilation.

Common Loon—Although not uncommon on some of our northern lakes, it has been observed but twice. Both times it was alone in flight (Oct. 26, 1932 and Apr. 13, 1935).

Double-crested Cormorant—Oct. 1, 1933.

Least Bittern—Two records have been obtained in 1934, one on May 31 and the other on June 2 (probably the same individual).

Lesser Snow Goose—In a flock of Canada Geese on Oct. 22, 1933 a single Snow Goose was seen making up the only record for the area. Blue Goose—Oct. 21, 1933. This goose was identified by the process of elimination and for this reason is not a conclusive record. Observed in a flock of Canadas, it was noted to be decidedly smaller and not entirely white although beyond that, color could not be definitely determined. It may have been a White-fronted Goose instead. By coincidence, perhaps, a Blue Goose was observed on the same day at Lake Calumet (Sanborn, Ford, Coursen—"Birds of the Chicago Region" 1934).

Baldpate—Apr. 4 and 5, 1933; Pintail—Have been seen but twice, Nov. 13, 1932 and Mar. 30, 1934. Green-winged Teal are decidedly less common than the Blue-wings at the dam and have been seen but three times; Nov. 13 and 19, 1932 and Mar. 24, 1934; Shoveller—Oct. 22, 1933; Redhead—Mar. 15, 1933; Canvasback—Oct. 29, 1932; Ruddy Duck—Nov. 13 and 14, 1932; Hooded Merganser—Mar. 15, 1933 and Mar. 17 and 24, 1934. American Merganser—May 12, 1934.

Broad-winged Hawk—July 2 and 26 and Aug. 23, 1933; Osprey—On the morning of Apr. 15, 1933 one was observed taking a large catfish from the river. The following week on April 22, it was still there but by the next Saturday it had left; Pigeon Hawk—Sept. 17, 1933.

Ruffed Grouse—May 7, 1932. Hungarian Partridge—Large flocks of perhaps thirty were seen on Nov. 17, 1932 and Jan. 26, 1933. A pair was observed on May 13, 1933 and a small group of six on Dec. 26, 1935. Bob-white—But one individual has been seen during five years of bird observation which must indicate that the species is virtually extinct in this area. Probably it is largely the result of the destruction of natural cover. The bird certainly deserves complete protection from hunters but as yet the open season is one month in length. The single record was made on June 23, 1934.

Sandhill Crane—On Aug. 10, 1931 it was our good fortune to see one of these birds land in a tree not over 200 feet away where he could be closely examined and even the unfeathered red forehead was easily discernible. Later, on Sept. 3 of the same year about six were seen circling in the air far overhead. Virginia Rail—The only record is May 2, 1932. Florida Gallinule—May 8, 1932 and May 19, 1934.

Semipalmated Plover—The status of this little plover in the area seems to be that of an irregular migrant. Until Aug. 17, 1933 none was seen and then but one individual. In the spring of 1934 however, it was seen from the 12th to the 30th of May, on the 20th thirteen individuals being present. An unusually dry spring may have accounted for the concentration but in the fall only one was seen on Sept. 15. Another was seen on Aug. 30, 1935 and one on Sept. 24.

Black-bellied Plover—Aug. 30, 1935; Dowitcher—One of this species arrived at the bay above the dam on Aug. 25 and remained until Sept. 10, 1934. The subspecies could not be determined with any certainty. Northern Phalarope—Aug. 16, 1933; Wilson's Phalarope—Apr. 29, 1934.

Ring-billed Gull —Mar. 6 and 22, 1932; Common Tern—May 19, 1934; Black Tern—July 29, 1933 and June 30, 1934.

Barn Owl—One seen on Nov. 12, 1932 was later taken by a sportsman. Great Horned Owl—A single owl of this species was found in a small patch of woods on Oct. 1, 1933. A second may have been present but since both were not seen at once this is uncertain. Barred Owl—A dead specimen was found on Mar. 3, 1934 and mounted. We judged it had died about a week earlier from an infection in the wing where it had been shot. Long-eared Owl—Dec. 24, 1934; Short-eared Owl—In 1934 this species was seen on three occasions; Apr. 8, Sept. 29 and Nov. 18. Saw-whet Owl—February 16, 1933. May have been found on other occasions.

Whip-poor-will—They have been found on three occasions; all of these were in 1934. On May 19 the first was heard and on the nights of June 2 and 3 another, probably the same individual on both evenings, gave a few calls.

Red-bellied Woodpecker—Having been found but rarely, red-bellies seem to be rather irregular in their migrations through our area. In the spring of 1931 a pair appeared on Apr. 9 and remained until sometime in June. It is not known whether or not they nested. Again on Apr. 8, 1934 a pair was observed but this time they did not remain.

Olive-sided Flycatcher—This species is far from common although individuals were seen upon May 21, 1933, Aug. 26, Sept. 3 and 10, 1934 and Sept. 7, 1935. Upon only one of these occasions were the white tufts on the flanks seen and that individual exhibited them only occasionally after it had returned from a short flight for an insect.

Red-breasted Nuthatch—Judging by our records, these birds are irregular migrants and occasional winter visitants. They were seen upon Jan. 1, 1933 which makes the only winter record. In migration they have been observed from Mar. 17 to May 8 and from Sept. 18 to Oct. 7. All of these records were made in 1932 and 1933 when they seemed to be unusually numerous.

Bewick's Wren—Apr. 8, 1932; Carolina Wren—Apparently rather irregular in occurrence, this wren was first recorded on Mar. 14, 1932 and later upon Mar. 25 of the same year. The following year wrens were seen on Mar. 31 and from July 27 to Nov. 4.

Blue-grey Gnatcatcher—Aug. 31, 1932, Apr. 29, 1933 and June 28, 1934.

Bohemian Waxwing—These large waxwings appeared in numbers early in 1932 and were seen from February 21 to April 4 of that year.

Northern Shrike—A single individual was seen on the 20th of Nov. in 1932. One stayed near a small patch of Hawthornes from Jan. 1 until Feb. 11, 1934. Migrant Shrike—Although not at all uncommon,

at least as a migrant near here, this shrike has been seen only once in our area on Mar. 17, 1934.

Prothonotary Warbler—May 13, 1933 and May 12, 1934; Worm-eating Warbler—This, probably the rarest bird upon the list, was identified without question by the stripes through the head in conjunction with the plain back, wings and breast. Its inactivity as compared to other members of its tribe, allowed close approach and a careful examination. This was on Sept. 2, 1932. Blue-winged Warbler—May 13, 1933; Orange-crowned Warbler—May 12, 1934; Cerulean Warbler—May 8, 1932; Pine Warbler—May 5, 1932 and Apr. 28-29, 1934. Prairie Warbler—May 12, 1932; Mourning Warbler—June 9, 1934 and June 1, 1935; Hooded Warbler—May 16, 1932.

Western Meadowlark—After a strong southwest wind had been blowing for about two days, a Western Meadowlark was found on Mar. 16, 1935. It uttered the typical call and song of its species, very unlike that of its eastern relative both in quality and in sequence of notes. Yellow-headed Blackbird—A single male was seen on Apr. 29, 1931 and a large flock on Aug. 26, 1934; Orchard Oriole—May 12, 1934.

Dickcissel—Several appeared for a short time during the summer of 1933 and were seen from July 3 until July 29. They were not seen before nor since so it would appear that they are quite irregular. Evening Grosbeak—Apr. 25, 1934; Redpoll—Dec. 29, 1933; Grasshopper Sparrow—May 27, 1934. Leconte's Sparrow—On May 20, 1934 four were seen, another being recorded Oct. 13, 1934. Henslow's Sparrow—July 31, 1933 and Aug. 23, 1933. Harris Sparrow—Aug. 28, 1933 and May 12, 1934. Although seen upon but two occasions, the Harris Sparrow is yearly becoming more common and it is a generally accepted fact that its range is being broadened so that it is now reported several times per year in the vicinity of Chicago. Snow Bunting—The status of this species is not definitely known since the majority fly over at such great heights that they cannot be safely separated from Lapland Longspurs. However, they are not as common nor as regular as the longspurs.

It might be of interest to add to this list, the largest number of birds seen in one day. This occurred on an all day hike taken on May 13, 1933 when 106 species were found including in that list 22 different warblers. The greatest number seen in one day in the fall of the year is 84, seen September 10, 1934, and this list includes 9 species of flycatchers which is all that one has any probability of encountering here. The banks of the Des Plaines River is unquestionably one of the best places possible for the study of warblers in migration. Altogether, thirty-two species have been found in the past five years. The total number of birds for that time in the area is 207 which includes about 140 regular visitants and residents.

Although a list such as this may be of little scientific value, it illustrates what can be done in a small area which is well known and regularly covered. Certainly it offers a hobby of lasting interest which of itself is a great value.

DONALD DUNCAN.

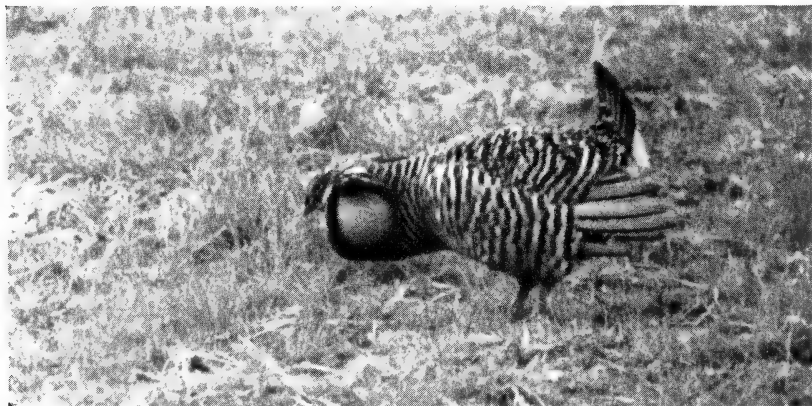
A Day With the Pinnated Grouse

By F. R. DICKINSON

About the middle of last April, when the first smell of Spring was turning our thoughts toward bird photographs, Dr. T. H. Frison, Chief of the Illinois Natural History Survey called up Alfred M. Bailey, Director of the Chicago Academy of Sciences, suggesting a short field trip for the purpose of obtaining motion pictures of pinnated grouse on a strutting ground. He gave specific directions as to the location, which was in a certain open pasture in central Illinois, and said that he had already arranged for the construction of blinds. During the next fortnight, Mr. Bailey, Mr. Earl G. Wright, of the Academy and I made two trips returning with some fairly good pictures and a fairly good excuse for not getting better ones. Mr. Wright spent his time in making portraits in color of small birds and brought back some pictures which did not call for any excuses.

As I have said, the field of our operations was an open pasture, which was bounded on one side by a well traveled concrete highway, and on the opposite side by a stretch of weedy land, long out of cultivation and marked at the edge with a tangle of low growth running back, here and there, into woods of moderate size. During most of the day and night the pinnated grouse, or prairie chickens, spend their time in this ideal feeding and roosting ground, but twice in each twenty-four hours, as regularly as if they wore wrist watches, the cocks come into the open to strut.

The first performance began at about four P. M. We had already been in our blinds for an hour and were beginning to think that the whole thing was a myth, when a soft, but resonant sound, a little like the mating note of the common pigeon, but many times louder, came



Photograph by the Author and A. M. Bailey

THE DANCE OF THE PRAIRIE CHICKEN

from somewhere in front. Through our peep-holes we saw a single cock walking slowly toward us some fifty feet away pausing now and then to send out his challenge. We looked beyond and saw in quick succession, ten more cocks, flying low, drop one by one to the ground over an area of about an acre near the blind. While waiting for the birds to come closer we studied their technique on the booming or strutting ground with much interest, and in my case at least, with considerable astonishment.

Each bird seemed to have a rather definite area which he left at his peril. At intervals of a few minutes he crouched slightly, uttered a rapid clucking sound much like a domestic hen, gave two or three harsh cries in quick succession and then began a rapid tattoo with his feet, sometimes gyrating, sometimes not, tail vertical, wings outstretched and drooping. The head, well up at first, began descending with a slightly jerky motion, the throat membrane of a bright orange color began to expand until it seemed the size of a tennis ball, and as it expanded there came the booming sound, in two distinct notes, and so loud that on a quiet morning it can be heard for half a mile or more. As the booming began, the two pointed tufts of neck feathers were swung rapidly to a vertical position. As the performance ended, they fell back and the tail feathers were slightly spread. When one bird started the others usually followed, filling the field and the sky with their music.

After a while they seemed to tire of such fruitless competition. One cock would walk or run rapidly toward another which seemed to be invading his territory and the two would begin moving forward and back, facing each other, their bills a foot or so apart. Usually they settled down, eyeing each other for a moment, and then, after a feint or two, leaped into the air, made a few harmless passes with their feet and called it a day, each walking back to his own bailiwick.

After this concert and sham battle had been going on for an hour or more the reason for it suddenly became apparent in the form of a prairie hen, who emerged coyly from a patch of rough ground nearby. Though she was plainly dressed and of most modest demeanor, her sudden entry made the young gentlemen quite delirious. Instantly the strutting ground became bedlam let loose. Most of the cocks joined battle at once with the nearest rival, leaped higher and cackled louder than ever, and for a moment the air seemed full of fluttering birds and actually a few loose feathers drifted off to prove that honor was being satisfied. Then suddenly all was calm again. One of the cocks, whether by leaping the highest, or cackling the loudest, had won the young lady's admiring heart and they mated upon his chosen dancing ground.

The morning show begins before daylight and continues until after eight, if the birds are undisturbed, and is carried on with more enthusiasm than the afternoon performance. On both occasions the birds were practically oblivious to our blinds, even alighting on top of them, and showing no reluctance at coming within twelve or fifteen feet of our whirring cameras. Two things made picture taking diffi-

cult: the lack of light both early and late, and the incessant movement of the birds when strutting, booming and fighting. We got some good footage of the prairie chickens but we also got a good many pictures of the grass on which they had been standing a second or two before.

Driving home we speculated on the curious habit which makes these creatures come back year after year to the same ground. They have been returning annually to that pasture for the past eighteen years, and, for all the owner could tell, for a hundred years before that. The spot is no longer remote or in any sense secluded. During the whole time we were there cars were passing continuously over the highway, within fifty yards of some of the birds. Fortunately their indifference to man under the spell of their mating activities, comes at a time of year when they will always be protected from hunters. If it did not, one open season would suffice to wipe out this finest of mid-western game birds.

Even as it is they need the fullest measure of protection and encouragement if they are to survive. The prairie chicken cannot, like the quail, retreat to hedge rows as farm cultivation advances. They must have wild land and close to it timber or high brush. It is questionable whether they can hold their own with the pheasants which have occupied much of their former range. In the absence of upland game reserves or of state cooperation with farmers holding large areas of uncultivable land, they seem destined to follow on the trail of their late lamented cousin, the heath hen.



BOOMING

Back Yard Aviary

Our ornithological knowledge may be subject to correction, but the thrill we get from watching the birds that come to feed and drink and bathe and make love in our back yard is not open to argument.

Our prize pair is the Cardinal and his wife. "Dicky is on the platform and Mrs. is on the ground!" is an almost daily exclamation. "The Nuthatch is going south head first" means that our suet basket on the elm tree is being appreciated. Or it may be the Downy Woodpecker or a Creeper enjoying the suet "pudding." The Blue Jay is still in evidence. So is the Junco. And of course the Sparrows and the Starlings.

The feeding platforms are hung by single wires about thirty inches long, running from an overhead horizontal down to the center of the platform, so that if a Gray Squirrel succeeds in "tight rope walking" and gets down to the feed, the platform will tilt with his weight. This has happened once or twice. The platforms are in the center of the yard and about six feet above the ground. No Gray Squirrel has attempted to jump up to the platform. The food we put out nightly on the platform is sunflower seed and unroasted peanuts; we also feed in daytime occasionally.

In summer our bird bath is always busy. Robins, Sparrows, Blue Jays, Cardinals, Orioles, Warblers, Finches, Starlings are in evidence. The American Cuckoo, the Rose-breasted Grosbeak, and the Woodcock have been seen there.

Flickers are abundant. A small flock of Bohemian Waxwings appeared for a short time one winter. A pair of Kingbirds stayed about two weeks last summer and the Screech Owl still comes occasionally. We saw him catch a Sparrow one winter evening. Thrushes, Brown Thrashers, Catbirds, Pewees, are here every summer, but all too seldom we see a Woodpecker.

A Nighthawk sat lengthwise on a wire above our garage for perhaps half an hour. We turned the garden hose toward him but he paid no attention; he did not move until a parent bird, from a nearby willow, flew at him and "banked" suddenly to start him off.

We have had the unusual privilege of seeing a Cardinal take a bath. Our bird bath is on the ground with the shrubbery nearby, and is in constant use in the summer time. In summer we watch the male Cardinal feeding the female; later, one comes to feed while the other stays (we assume) on the nest; still later they apparently carry a crop full of seeds to the young; then they brought the young birds to nearby trees and fed them; and finally the young fed themselves. The Blue Jay carries the seeds away from the platform to a large limb where he "operates" with his long sharp bill while holding the seed against the limb with one claw.

The cats, as Mr. Kipling said, are another story.

W. CONNELL (River Forest), Ill.

Conservation: Notes and Comment

For once we do not have to begin our annual message and review with a wail and a groan. For once the cause of conservation has received a decided impetus instead of the body-blows we are used to. For once we may indulge in a shout of triumph instead of deprecation. J. N. Darling, the chief of the United States Bureau of Biological Survey, to which by common consent of the governing and sportsmen's bodies was left the giving of the final rules in the desperate duck and wildfowl situation, promulgated seven far-reaching reforms, just before retiring from his post. They are the following: the stoppage of baiting game to kill it; no more live decoys are to be used; the stoppage of using sink-boxes in deep water; the reduction of possession bag limit to one day's bag; no more early and late shooting; the reduction of the open season to thirty days; reducing the number of birds to be taken per day.

Now the question is, can and will these rules be enforced. A bad augury lies in the fact that Chief Darling resigned his position in disgust right after their promulgation, because he did not get the necessary cooperation from the several departments concerned with conservation, and of his being hampered at every turn by the interference of pestiferous politicians. Let every one therefore write to Mr Ira N. Gabrielson, the new head of the Biological Survey at Washington, congratulating the bureau on this achievement and urging him not to recede from this new position, and promise him your support. Letters with similar content may with advantage be sent to our congressmen.

Unfortunately, the above limitations have been grossly ignored in our state during the last hunting season, mainly along that *via dolorosa* of wildfowl, the Illinois River. And to climax this infamy we have been reliably informed that not only some leaders among sportsmen have coolly and flagrantly set aside these necessary regulations, but some of the leading officials of our state conservation department likewise. That should bring about their impeachment.

This deplorable condition, however, should impress upon the mind of all Audubonites and all conservation-minded people the next most important and desirable objective to be worked for by them, viz. the divorcing of the department from politics. In other civilized countries and the more progressive of our states they have experts at the head of such bureaus and departments, but we reward incompetence, brazenness and buffoonery with highly responsible positions. Think how different things would be in Illinois if the administration of conservation were in the hands of the State Natural History Survey at Urbana, with notice to the politicians: Hands off!

What can we do toward the achievement of such a goal? Elections are near again: let us contact the candidates for offices, especially for those of governor and legislators, and urge upon them the necessity of the divorcing of the conservation department from politics and poli-

ticians, and placing at its head trained scientists. Try to make them understand the fact that the outdoors and its children are not the property of the gun-toters, but just as much of the non-shooting part of our citizenry. The majority prefer to see our animals alive, not dead. Bring home to them the necessity of curtailing the slaughter of the innocents before it is too late. Also give them a hint of the growing tiredness on the part of the voters with indifferent and negligent officials, and the growing desire to "turn the rascals out." That is, after all, the only argument that enters the thick pate of many of our politicians. Oh, the shame of it! Bring home to them the necessity of enforcing the rules lately given out by the Biological Survey as stated above. Do it in your local papers, in meetings of various kinds, of garden clubs, of Rotarians, Kiwanis, Lions Clubs, of boy and girl scouts, before classes and clubs in schools. If we all do our bit, if we all "pull together," something will be accomplished. Only let us do it before it is too late, before our wildfowl, our Mourning Doves and Prairie Chickens and others, will have joined the ranks of the Passenger Pigeon, the Labrador Duck, the Eskimo Curlew, and many more.

Before closing this diatribe another pleasing fact should be noted. The vacancies in the board of directors of our society, caused by the death of such valued members as Ruthven Deane, Jesse Smith, and Chreswell Hunt, have been filled by the election of Barry Locke of the Izaak Walton League, Dr. T. E. Musselman of Quincy, Dr. R. E. Yeatter of the State Natural History Survey, and Dr. Alfred Lewy, all outstanding conservationists and able ornithologists. Our two junior field agents, Hugo Zeiter, of Danville, and F. C. Bellrose of Ottawa have done yeoman service for conservation in their respective neighborhoods.* In fact, all of our members, all over the state, should each look upon himself or herself as a committee of one to become active in "getting across" the principles of our society and of conservation in general, also possibly start local chapters of the society, and report in to us here. Let us do it, this year and later, the need is imperative.

C. W. G. EIFRIG.

Since the above was written Mr. Donald Culross Peattie, author of "Singing in the Wilderness," has been elected a director of our association.

*The former has just been awarded the Hornaday Gold Medal of Conservation, given from time to time, very sparingly, for outstanding endeavors toward conservation by that veteran and inveterate champion of conservation, William T. Hornaday.

Wildlife Sanctuaries in Illinois

Under the above title the State Natural History Survey, under the able leadership of Dr. T. H. Frison, has recently compiled a list of state parks, county forest preserves, and other areas in which hunting is positively forbidden. It may be of interest to our members to know where they are.

Cook County Forest Preserve District.....	33000 acres
Kane County Forest Preserve District.....	300 acres
Winnebago County Forest Preserve District.....	1116 acres
Piatt County Forest Preserve District.....	110 acres
DuPage County Forest Preserve District.....	1100 acres
Union County State Forest.....	3482 acres
Horseshoe Lake Game Refuge, Alexander Co.....	3160 acres
Oquawka Game Refuge, Oquawka.....	200 acres
Apple River Canyon State Park, Jo Daviess Co.....	152 acres
Blackhawk State Park, Rock Island Co.....	200 acres
Fort Massac State Park, Massac Co.....	194 acres
Fort Chartres State Park, Randolph Co.....	21 acres
New Salem State Park, Menard Co.....	200 acres
Starved Rock State Park, LaSalle Co.....	838 acres
Cahokia Mounds State Park, Madison, St. Clair.....	144 acres
White Pine Forest State Park, Ogle Co.....	275 acres
Giant City State Park, Union and Jackson Co.....	916 acres
Cave-in-Rock State Park, Hardin Co.....	60 acres
Buffalo Rock State Park, LaSalle Co.....	43 acres
Mississippi Palisades, Carroll Co.....	482 acres
Fort Creve Coeur State Park, Tazewell Co.....	17 acres
Campbell's Island, Rock Island Co.....	7 acres
Pere Marquette State Park, Jersey Co.....	100 acres

Miscellaneous Refuges

Lincolnshire Country Club, Crete.....	1200 acres
University Woods, Urbana.....	60 acres
Brownfield Woods, Urbana	60 acres
Bird Haven, Ridgway Memorial, Olney.....	115 acres

In addition to the foregoing there are many state memorials of small acreage which also function to some extent as wildlife refuges. If any of our members know of areas that should be set up as sanctuaries for the plants and animals found in them, bring them to the attention of the state authorities. Let our members look up these various sanctuaries, observe the wild life in them, and report their findings in the local press and to us. If any areas have been overlooked in the above list, please, bring the matter to the attention of the Illinois Natural History Survey, Urbana.

C. W. G. E.



TRAIL THROUGH TANGLED THICKET

Early Experiences in Imitating Bird Songs

As a boy the thought of someday being able to make birds answer me was uppermost in my mind. Let me in this article tell you of some of the hardships and pleasures involved in doing this work.

A man once told me that I had a double note whistle, something rare in whistling. In trying out my capabilities I found that Robins sometimes answered my attempts. The first whistling was crude but birds answered sometimes—not always. Then there were the early attempts attracting Quail. Once while walking on a cold winter day a covey of Quail was observed. I crawled into a straw stack to get warm. Much to my elation and joy a bunch of Quail ran from one brush pile to another. Then came the first attempt to coax birds close to me. I called softly and carefully. The Quail came one by one until I could have reached out and touched them.

How much joy and happiness came into my life those first years nobody knows. There were times when it took careful reading, careful days afield and the job of remembering the exact tone and inflation of the human voice to fit a hall and making the songs of the birds real. I wrote the songs down in words as they sounded to me. Those impressions were the lasting ones. And how hard it was to conceal the fact that I was making that phase of bird study. Well, to make a long story short, I was out in the field a great deal from twelve years of age on.

The first time the songs were given in public was at a play our church gave. Twelve calls were given. A newspaper man heard the first attempt and urged me to continue my studies; I took the hint and kept up my crude attempts until people began to take notice and the birds too. The first trials at doing the "Hurry-hurry-hurry" call of the Cardinal are still vivid in my mind. Now I whistle seven calls of the Cardinal. Then the days afield trailing the elusive Killdeer with his wing-broken stunt. Now I know of twelve species that resort to that ruse to evade capture.

The distress call was not known to me for several years when I suddenly used it one day and found it quite effective. Now experiences have been noted when nine species were seen almost instantly, investigating where the noise came from. Here at the Melcher bird refuge in Florida a few days ago I saw sixteen birds attracted by a black snake and they were highly excited at my intrusion into their world. Just for fun the distress call was given. A mocking bird just about knocked my hat off. Birds become highly excited during the nesting period when this alarm note is given. A vesper sparrow trailed over my shoe tops one time and other birds have come very close to me with wings drooping. I only use the alarm note when trying to keep a bird in view a little longer.

Birds have many rare notes, notes perhaps which human beings very seldom hear. Only one who has the time and inclination to be in the field a great deal and who goes in any kind of weather, hears



Photograph by F. R. Dickinson

THE BROWN THRASHER

and sees the unusual. Birds in captivity seldom exhibit all of their characteristics. Certain species can be distinctly identified as they travel on their migrations at night. I love to whistle as they travel in flocks. Many species hesitate when one calls as they fly over. It has been surprising how many birds answer and circle when one gives the right call at the right time. Some calls are more effective at certain periods in the year. These little notes when birds are in flocks are highly interesting and cannot be learned over night but take years of careful study and practice. Many ducks never respond unless the exact note is given.

Birds are not easily fooled. In my earlier experiences I wrote down every note in words. I still have that book which helps me get the right note at the right moment. Human minds cannot get the right inflection instantly. After a few months out of the field some calls must be given several times before the birds will respond. It has been a constant pleasure to me to add even one new call a year. Sometimes I have used instruments, some of them crude things and some expensive, but in the majority of cases the human throat has been resorted to as the most reliable. Bird notes are usually soft. The Blue Jay is an example of a harsh note, and a good example of a soft note is the "I-I-Peabody-Peabody-Peabody" of the White-throated Sparrow. Of all songs I love the Brown Thrasher the best—his way of sitting on the tip-top of a big tree and gloriously rolling off the repeated notes.

Now after twenty-five years of bird study there are calls and songs of forty-three of our native birds that I imitate fairly well. Some throats more than others are adapted to imitating bird voices. It has been a joy, a happiness and something worth while to me to learn to call our birds. So, if you are thinking of learning bird songs, start early, stay in the field, sleep out, eat out and stick to it!

EDMUND F. HULSBURG.

The Morton Arboretum A Bird Sanctuary

Sixty years ago, Joy Morton, while visiting the Arnold Arboretum near Boston with his father, acquired an inspiration which was finally brought to fulfillment by the establishment of the splendid Arboretum which bears his name. Situated just north of Lisle, in DuPage county, it is one of the finest examples of a man's life-long vision brought to fruition.

The selection of the location was made after an exhaustive search for suitable soil conditions adapted to vigorous plant growth, also to find a locality known for the good health of its residents. The region north of Lisle was found to have more residents of advanced age, still enjoying good health than anywhere else in the Chicago region. The topography was ideal; the Dupage river's rich alluvial valley between morainic gravel hills, a large portion of the higher ground being covered with fine hardwood forest bordered with a luxuriant belt of shrubs, indicated suitable soil and good drainage.

In the spring of 1922 the first plantings were made of new material, which has been continued until today there are approximately 4500 species and varieties of trees and shrubs, totalling nearly 400,000 specimens from near and far. Of these more than 10% are evergreen conifers. Starting originally with 400 acres, the area has been expanded to 775 acres, which is more than three times the size of the famous Arnold Arboretum.

The setting aside of so large a tract, and the planting of evergreen trees and many fruit and edible seed bearing shrubs to supplement the natural flora, automatically created an ideal bird refuge, which the birds were not slow in discovering. In the summer of 1922, the writer flushed a pair of Lark Sparrows at the edge of the woodland, evidently a nesting pair. Benjamin T. Gault's Dupage Co. records quoted in Chapman's Handbook says of the Lark Sparrow, "local and uncommon summer resident."

Contrary to the prevalent belief that birds' nesting habitats are controlled by latitude, it is well known that conditions of environment and food supplies, are much more vital. Many birds have been found nesting far north or far south of their supposed summer homes. As examples, the nesting of the Mourning Warbler near La Grange, Brewer's Blackbird in Lake County, the Prothonotary Warbler in Sauk County, Wis., occasional nests of the Carolina Wren near Chicago, and many other records equally rare.

Since 1900 a number of birds, principally non-migratory, have extended their range. Of these the Cardinal has roamed the farthest, having been reported from northern Minnesota, northeastern Iowa, and all along the large rivers. Other birds that have moved north are the Tufted Titmouse, Carolina Wren, and Bewick's Wren, the latter a migrant.

At intervals based on shortage of food, many northern birds move south in winter. Among these are the Evening Grosbeak, Redpolls, Pine Siskins and more rarely the Pine Grosbeak, and the Red, and White-winged Crossbills. Still more erratic are the Bohemian Waxwings. The food found in winter in the Chicago region consists of such dry seeds as ash and sugar maple, pulpy fruits of high bush cranberry and nannyberry, privet berries and certain hawthorn fruits that persist through the winter. For the Crossbills, along the North Shore and in the Waukegan Flats, there are many pines, and in many large grounds mature Norway spruce, and other conifers, whose cones conceal beneath their scales the seeds that are the favorite food of Crossbills.

At the northeast edge of the Arboretum, along the Dupage river is a fine grove of black alders, appearing to be indigenous, but which are the offspring of a tree that was brought from the Black Forest in Germany almost 100 years ago, and planted on the upper Dupage. When the tree reached bearing age its seeds floated down the Dupage river starting many groves, the finest of which is the one above mentioned. Here in the winter and early spring one is almost certain to find flocks of Redpolls and Pine Siskins feeding on seeds of the alders.

In January of 1934, the writer with two other bird fans after a hike through the east section of the Arboretum, on their way out to the Ogden Avenue entrance met friends from Hinsdale who reported having seen a pair of strange birds feeding on high bush cranberries. We soon located the birds and were greatly thrilled when we discovered a beautiful pair of Pine Grosbeaks. This was a treat for all of the party as they were so tame they permitted close inspection. While an accurate list is not available of the birds known to visit the arboretum during the year, the list would no doubt be a large one.

On Dec. 29, Frank Pitelka, a very keen observer, scouted a trail through the Arboretum for the Chicago Prairie Club's New Year's Day hike.

At the writer's request he made a list of the birds seen and the number of individuals of each species, which is given in the Christmas census over his own name. The high spot of his list was a pair of White-winged Crossbills, which were found feeding on the seeds of hemlock along the south shore of Lake Marmo.

In connection with the Arboretum there has recently been completed a beautiful Administration building as a memorial to her father by Mrs. Joseph M. Cudahy of Lake Forest. The building is exquisitely furnished in rare woods, and contains besides the administrative office, a wonderful library and herbarium. Beginning with J. Sterling Morton, the founder of Arbor Day, and a pioneer in reforestation, his son Joy continued the work on a much larger scale, and now Joy Morton's daughter, as chairman of the Board of Trustees will supervise the future of this great project, the greatest of its kind in the United States.

ORPHEUS MOYER SCHANTZ.

December (Chicagoland)

Above, the leaden sky;
Beneath, the sodden earth;
Only the birds and I,
Of other life a dearth.

No festive wren or robin bold,
Nor oriole nor kingbird;
With many these had fled the cold,
But some there were that lingered.

The creeper brown ran up, flew down;
The titmouse frolicked freely;
The nuthatch of the ruddy breast
Crept up or down as pleased him best;
The starling's spots were steely.

The kinglet of the golden crown
Among the branches speeded;
The chickadee hung upside down
An acrobat conceded.

The woodpecker (the downy one)
From tree to tree was flying;
His rat-a-tat, not all in fun,
For sleeping grubs was prying.

And best of all the cardinal
My lonely vigil greeted;
The junco, too, with startled call
To thicker brush retreated.

Only the birds and I
There in the lonely wood;
A hint of mystery,
A soothing solitude.

W. FOSTER HAYES.

1935 Nature Diary

By DR. T. E. MUSSELMAN

January, 1935

1. Titmice are singing "Peto" as they fly from tree to tree.
2. Male Chickadees are singing "Pewee" while the Tits sing "Peter, peter, peter."
4. Several great flocks of doves are wintering about the feeding troughs of stock raisers.
5. A flock of twenty-five wintering Meadowlarks was seen east of town.
6. The temperature is up to 60°. Saw several Bluebirds. Saw a spider. Even the air has a springy odor except where the Herring Gulls are feeding on dead fish on banks and bars. A concentration of a thousand gulls is causing comment at the dam at Hamilton, Illinois.
9. A man brought in the head and tarsi of a mature Whistling Swan killed recently at Lima Lake. Two were killed on December 30. This is the first dead record in ten years. Why will vandals destroy such beauty?
12. Cardinals are singing.
- 21-25. Zero spell. Quail survived very well.
26. Mergansers and Golden-Eyes are swimming in the current while three Bald Eagles (an immature and two mature) watch their play from the roots of an upturned tree on the dyke. Pil-eated Woodpeckers are calling from the lowland woods.
27. Heard the "Barn door" call of the Blue Jays.

February

3. Put up fifty-four new Bluebird boxes. Big wave of Horned Larks came in. Downies are drumming.
5. Saw my first Robin, others reported.
18. Horned Lark males are performing their nuptial flight.
19. Numerous flocks of Starlings have appeared.
20. Large flight of Bluebirds.
21. Honeybees out feeding on sap. Red-wing Blackbirds and Killdeer just arrived. Many Robins here, all are complaining.
23. First Fox Sparrows. Great flocks of Mallards and Pintails here. Erected twenty-four more Bluebird boxes.
28. Migrant Shrikes and Doves arrive. Meadowlarks singing.

March

1. Lesser Scaup Ducks reported. A few maples are in bloom.
2. Cowbirds arrived today.
3. Thunder and lightning. Kingfishers here.
10. Great Blue Herons arrive. Flickers dancing and singing.
12. Red-headed Woodpeckers back and sallying out for insects. Cricket frogs chirping.
14. Crocus in bloom. All birds singing. Elm trees in bloom. Many doves arrive.
15. A flock day—great hordes of Red-wings and Cowbirds.

16. Doves singing. First Martins and Grackles. Hepaticas and dandelions in bloom.
19. Field Sparrows, Phoebes, and Purple Finches back and singing.
20. First White-throated Sparrows. Today brot in a terrific dust storm. Gnats were thick, spattering up my windshield.
21. Equinox. First Brown Thrasher, and Chewinks, with White-throats singing.
22. Bewick's Wrens arrived. Several Bluebird boxes have nests ready for eggs.
23. Snakes are out in quantities.
24. Spring beauties, anemones, dog toothed violets are in bloom. Sapsuckers are girdling trees with holes. Pieris and Antiopia butterflies are out. Box elder and ironwood trees are blooming, also yellow cordalis. Chipping Sparrows and Wilson's Snipe are new.
26. Today I enjoyed the greatest experience in years. I travelled across the river. A farmer boy told me that a strange long-legged yellowish goose or duck had flown into his barnyard during the heavy dust storm of March 20. I stopped to see the bird and found a Fulvous Tree Duck fraternizing with the ducks. The geese wouldn't tolerate it. It remained for several weeks and was studied at close range by many bird students before it took wing again for the Southwest.
27. Shadbush in bloom. Redbuds are dropping the last year seed pods.
28. Hard maples are in full bloom. Red-tailed Hawks have eggs.
31. Thirty-two out of forty boxes in one unit now have Bluebird nests. Eggs are in some. Upland Plovers arrive.

April

1. Great flocks of Bluebills are here. Estimated ten thousand of them are feeding on Lake Cooper. Coots are also numerous. Juncos in the light brown color are here.
6. First Coprinus mushrooms are numerous about old stumps.
7. Heavy snow and cold. Bluebirds have suffered. Found several dead on their nests. Several others brought in to me by farmers.
8. Hermit Thrushes here. Increased numbers of Sapsuckers, also Tree Sparrows.
9. Most Juncos are gone. Brown Creepers still here.
10. Big rain. Increase in Coots. Saw five Golden Plover, several Greater Yellowlegs and one Jack Snipe. Redbud trees beginning to show color.
12. Box 75 has a single pink-white egg. Herring Gulls are following plows about the farms, eating grubs.
13. Brown Thrashers are singing. Broiled three caps of *Pleurotus cervinus*.
14. Found a wounded Blue Goose at Goose Lake. New birds today: Pied-billed Grebe, Cormorants, Swamp Sparrow, Ruby-cr.

Kinglet, Blue Gray Gnatcatcher, Bank Swallow, and Myrtle Warblers. Little gray morels broke out today. Red Admirals and dragon flies are flying. Ninety-five out of one hundred and five boxes had Bluebirds in them, but only twenty-five are now occupied. The cold and snow certainly caused havoc.

16. Bluets are in full bloom. Pectoral Sandpipers numerous.

17. Golden-cr. Kinglets are thick today. Plenty of Coots, Blue-bills and Blue-winged Teals are still here. Great Blue Herons nesting.

18. Grasshopper Sparrows and Savannahs have arrived. Found a nest with five albinistic Bluebird eggs.

19. Swifts are here. Great swarms of male mosquitoes are flying.

20. Water-thrushes are common on Mill Creek. Picked a big mess of morels. Dutchman's breeches, bluebells, Jacob's ladder, and yellow violets are numerous. Water cress is particularly tasty.

21. Vesper Sparrows back. Sparrow Hawks have eggs.

22. Juncos still here. Ruby-crowned Kinglets singing.

24. Creepers still here. House Wrens just arrived. Bats flying tonight.

25. Rose-breasted Grosbeaks and Kingbirds back, while the tree-tips are full of Goldfinches. Spring beauties and sweet William in fine bloom. Redbuds and white crabs in full bloom. Soft maple squirters full of sap. Wood Thrushes and Little Green Herons arrived this afternoon.

26. Lots of morel mushrooms out. Buttercups and wake robins in woods. Strawberries are also blooming. Papilio turnis flying. Lark Sparrows and Barn Swallows are both here.

27. Turkey Buzzards have eggs. Red and the White-eyed Vireos here, also Crested Flycatchers, Baltimore Oriole and Warbling Vireos are new.

28. Found another box with white Bluebird eggs. Dickcissels Bobolinks, Cliff Swallows, Chats, Northern Yellowthroats, Prothonotary Warblers, and Florida Gallinules are new. Wild mustard is yellow while the catkins are hanging long on the shingle oaks.

29. Buckeyes are blooming. Teal and Scaups are still here. Cowslips are lovely. Redstarts are busy gleaning bugs.

30. A Prothonotary Warbler built in a freight car coupler. The train moved out however before the nest was completed.

May

1. Catbirds are here. Wild apples, redbuds, and dogwoods are in full bloom. White clover blooms are drawing bees. Tennessee Warblers are singing in the trees.

2-3-4. Rain. Put up sixteen Prothonotary Warbler boxes. Found ten pounds of morel mushrooms. Several were sixteen ounces in weight and ten inches tall. White-crowned Sparrow, Soras, Yellow Warblers, Indigo Buntings, Black and White Warblers, Spotted Sandpipers, Bittern and Lesser Yellowlegs were new.

5. Found two successive boxes with white Bluebird eggs. Golden-winged Warbler, Palm Warbler, Henslow's Sparrow, Bachman's Sparrow, Common Tern, Rough-winged Swallow, were here today. Sassafras and all oaks in full bloom.
6. Hickory trees blooming.
7. Increase in Swifts. Nighthawks back. Upland Plovers have complements of eggs. Yellow-headed Blackbirds here. Black-throated Blue Warblers, Bay-breasted Warblers new. Shrikes have full complements of eggs; nests always in hedge fences.
8. Yellow-billed Cuckoos and Ovenbirds here.
9. Pink anemone is beautiful today.
10. May apples in bloom. Orchard Orioles are flashing their mahogany and black feathers.
11. Hummingbirds and Wood Pewees busy. Spiderwort blooming.
14. Wild larkspur in bloom, also false indigo and cowpeas.
15. Wild hyacinth beautifully full of bloom.
16. Wild cherries blooming.
17. Baby shrikes out of eggs. Whip-poor-wills have eggs.
18. Killdeers out of eggs today. Grasshopper Sparrows have eggs. Young Sparrow Hawks out of eggs also.
19. Pawpaws in bloom. A few Scaups are still here. Black haws blooming.
20. First fireflies. Buffalo dock in full seed.
22. Banded first young Bluebirds. Bittersweet blooming.
26. Greenbriar smilax blooming.
29. Cottonwood seeds are blowing. Hummingbirds are building nests. Baby Starlings out of nests.
30. Honeybees in honeysuckles. Penstemon in bloom. Many young Bluebirds are out of nests.

June

1. Yarrow in bloom. Corn cockle is showing pink, while little wild roses are lovely in the long grass.
4. English plantain in bloom. Had an albino fox snake brot to me. It was snow white, with pink markings and pink eyes.
8. Yellow sweet clover and syringas in full bloom.
10. Daisy fleabane is breaking into bloom. Willow trees are in bloom.
11. Small native dogwood is blooming. Phoebes are out of their eggs.
12. Blue grass seed ripe. Venus mirror and hound's tongue in full bloom. Roses are at their best.
15. Catalpas are in full bloom. Catnip is purple.
16. Meadow rue, bindweed, coneflower, white California poppy, and wild parsnips are all in bloom.
19. Wild iris make the swamps purple. Honeysuckle is sweet.
23. Banded fifty young Bluebirds. Timothy blooming. Oxeye daisies, Queen Ann's Lace and Sumach in bloom.
26. Off for Carolina.

July

28. Found a box turtle gorging itself on a huge *Boletus* mushroom.

August

6. Banded the last of my young Bluebirds.
16. Tortoise shell caterpillars are stripping Chinese elms of leaves.
25. Cardinal flowers are lovely in the bottoms.
26. Snow on the Mountain is white about the fields.
27. Have seen very few of the Little Blue Herons, Egrets, and Snowy Egrets which normally are so common during this month. I believe this is because of the very high water.

September

2. I set seventeen Quail eggs under a Bantam hen.
7. Spanish needle is at its best. Fields are literally yellow with it.
8. Osprey here. Red-eye Vireos and Redstarts are on their way south. Primroses are in fine color.
10. Great growth of *Agaricus campestris* today. Hundreds of persons are eating wild mushrooms today. Many immature Wood Ducks are flying.
13. Big southward flight of Nighthawks; local birds still here. Tree Swallows gathering on wires.
14. Tremendous flight of May flies and leaf hoppers.
15. Caspian Tern gathering in small flocks on the sand bars. Killdeer flocking. Big flight of Swifts.
22. Hickory nuts are falling. Yellow sunflowers, Michelmas daisies, little white fall asters are very fine. House Wrens, Rose-breasted Grosbeak, and Nighthawks are still here.
28. Goatweed butterflies abundant.
29. Brown Creepers, Catbirds, and Nighthawks are still here. Swifts flocking in tremendous numbers.

October

4. Big flight of small birds. Juncos and White-throats here.
9. Chestnuts are falling. Pawpaws are ripe.
10. Cobwebs are flying.
12. Snakes are moving to their winter homes. Have found several ring-necks, pretty blue and red creatures.
16. Pennyroyal seed falling. Ruby-crowned Kinglets singing.
17. Swifts gone. Lots of Myrtle Warblers.
18. Big flight of Cormorants.
23. Great Blue Herons took off for the Southland.
27. Scaup and Mergansers back.
28. Extra: Three men hunting on a sandbar south of Quincy saw a flock of large black and white birds flying along the bar. They killed two and brought them to me for identification. They were a pair of American Avocets, winter plumage. I can find but three sight records for Illinois.
30. Redheads, Canvas-backs, and Golden-eyes are here.



Photograph by Alfred M. Bailey

UPLAND PLOVER

November

3. Thousands of Snow Geese passed over.
5. Many flocks of Cowbirds are migrating.
15. A stray Great Blue Heron passed on down river today.

December

4. For the second year we have Red-breasted Nuthatches.
10. Saw a stray Robin today.
22. A larger flight than usual of Northern Pileated Woodpeckers is here.
28. Reports from a number of farmers tell of large flocks of Doves and some Meadowlarks wintering about the feed troughs and cattle sheds.

Notes From the West

An excerpt from a letter written by Mary Cooper Back, former Curator of the Academy's Trailside Museum.

We had quite a strenuous spring and summer, traveling, camping and painting. It's been a wonderful experience, and will furnish us memories enough to keep our minds busy a long time. It took us six weeks to get as far as Yellowstone Park, and we had two weeks there. We settled down in a little cabin on the Wind River

Ranch and worked as hard as we could all summer. And now we have our long-hoped-for, long-talked-of ranch of our own. It's up in the world, at an altitude of 7700 feet. It's on a slope of the Wind River Range, very close to the point where that range wedges into the Absorakas. In fact, from our very cabin one can see in one direction the gentle, heavily timbered slopes of the Wind River Mts.; and as close in the other direction the high, violet, Matterhorn-like crags characteristic of the Absorakas. Our land lies open to the south and protected in all other directions by high slopes. It's a fairly level tract of bottomland and terrace, right at the upper limit of sagebrush, where it gives way to timber. The cabins are on a small sage flat, with trees around and above them. The colors are lovely this fall. The near hillside is a tapestry, with russet willows and crimson birches in the bottoms, alternating with yellow hay land; then gray and violet sage a little higher up; then a wide band of somber lodgepole brilliantly accented with yellow and orange aspen; and finally the crags at the top.

We have lots of water. Upper Wind River winds from north to south through the bottomlands. From the west Lava Creek roars down off Lava Mountain, right past the cabins. As soon as we can get around to laying pipe, we will have lots of running water. The snows of winter are said to be heavy here. We are three miles above the winter "end of road" for cars.

There are five good-sized beaver ponds on the place, with two large, inhabited houses. We have occasionally seen the beaver at work, though we don't know how many there are. The ponds and connecting streams naturally support a typical marsh life. In the evening you can hear the ducks "talking" from the cabin. In the last few days I have seen Hooded Mergansers, Mallards, and Barrow's Goldeneyes there. I hope next year to begin a systematic study of the wild life of those ponds. If you look up Lava Creek you can see, not four miles away, the high slide rock at the Continental Divide, where the conies live. We hear also rumors of mountain sheep. In between the divide and here is a wide stretch of rather heavy forest, where deer, elk, moose, and bear are found. This particular stretch is game preserve, and not officially hunted. Moose are said to winter in considerable numbers (three or four together at the same time being apparently a "considerable number") in the willow thickets of our bottomland.

This is quite a ways off the beaten track, at least in winter. A main highway to Yellowstone Park, U. S. 287, runs along the eastern edge of the place; but it's not kept open in winter. We're 104 miles from Riverton, on the Northwestern Railroad. A daily stage runs between Riverton and Dubois, carrying the mail. We're 22 miles above Dubois. The usual way of getting up is to drive to the Wind River Ranch, three miles down the highway, and make the rest of it on snowshoes, or with a team and sled. We are isolated but it is a world of fun and we have the leisure to study and paint, as we have long desired.

Our Robins at Christmas Time

Every winter we have Robins in Florida, but this winter there are more than I have ever seen in previous years. Almost any time one can see flocks of a hundred or more flying overhead, and at morning and evening the flocks are much larger. They seldom come to the ground for food, but feed largely upon the fruit of the cabbage palmetto. This is a black berry-like fruit with a comparatively large seed. As the robins eat the outside flesh and reject the seed, the sound of the falling seeds on the palmetto leaves below is almost like the rat-a-tat-tat of a woodpecker. After the palmetto berries are gone, they eat the fruit of the Florida holly and follow that with the fruit of the Florida cedar. In the strawberry areas growers complain that the Robins eat their fruit, but in our place where there are wild fruits, our few cultivated fruits are seldom touched.

This Christmas we had an unusually long severe cold spell, and when on the first warm day Miss Mitchell and I walked down the driveway through the hammock, we saw such large flocks that we estimated we saw from three to five thousand. I said three thousand, Miss Mitchell said five thousand. The trees were full of them and flocks seen against the sky reminded me of swarms of bees. Mingled with their usual call, which is the same note we hear in the north when they congregate in the fall, was the springtime note of "Cheer-i-up, cheer-i-up" as though they welcomed the warmth after the siege of cold. It is unusual to hear them really sing here, but the note was as tuneful and joyful as that we hear in Illinois when our first robins come home.

LOTTA T. MELCHER.

Bird Notes From Evanston

Cardinals have come to be one of the best known birds in this vicinity, not only because of brilliant plumage and lovely whistled notes, but because they nest here from April to August, and since they do not migrate, add a flash of color to the winter landscape.

Sunflower seeds, their favorite food, are provided for them at many feeding shelves, which they share with the familiar nuthatches, and an occasional Chickadee; where suet also is on the lunch counter, our other winter birds, the Downy Woodpecker and his big cousin, the Hairy Woodpecker, and sometimes the little Brown Creeper, join them to make up a hungry company.

The English Sparrows, of course, eat more than their share, and when Starlings appear, as they did on our own food counter Christmas morning, one's hospitality is sorely tried.

The Cardinal has already begun to whistle a bit since the turn of the year, and it will not be long before he is again paying court to the

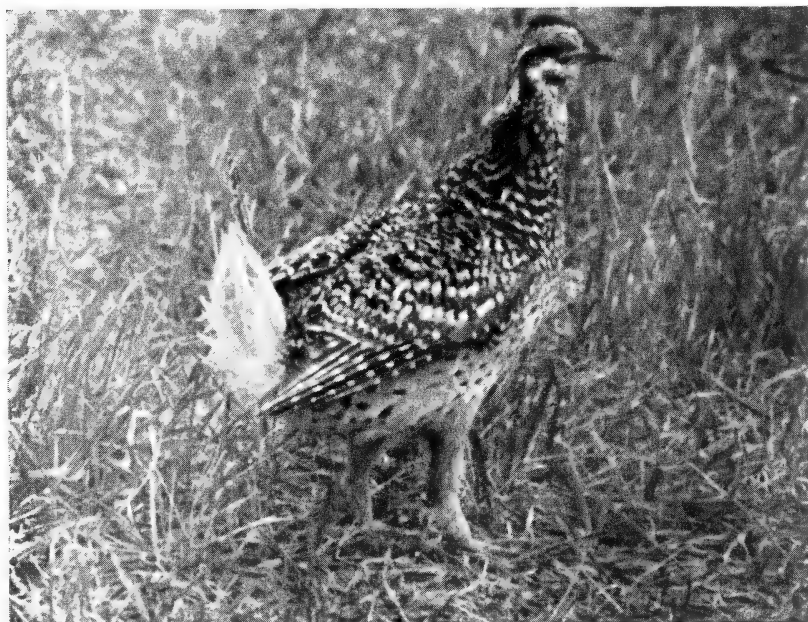
quiet beauty of his lovely mate. Their first nest last year, built again in the white cedars, was begun April 13. May 9, young were in the nest. As usual, this pair built twice again in the immediate neighborhood, in June and in August. But the sum total of young for the season is small, averaging two to each nesting. The last two of the season's babies were still being fed at the shelf September eighth.

We always count on having a pair of Wood Thrushes nest somewhere near us, and were glad to see building operation begun in May. However, these birds must have been inexperienced youngsters, for their nest building efforts were complete failures. The first two uncompleted attempts were on a trellis and on a roof bracket of a garage; the third nest in the fork of a small tree, was completed, but was so insecurely placed that it toppled over in the first storm.

Unusual visitors to the feeding shelf included a Brown Thrasher, on Sept. 10; a Mourning Dove on April 16, not only feeding but "mourning" there; a Water-thrush on Sept. 26; a Scarlet Tanager June 1. Golden-crowned Kinglets were seen frequently this fall in the shrubbery, and remained late, the last ones being seen December 3.

From two different places on Ridge Avenue in Evanston, where there are large gardens with abundant shrubbery, come reports of pheasants coming in from open fields to the west for food and shelter. And what is even more interesting, small coveys of Quail have been seen at the same places.

BERTHA T. PATTEE.



Photograph by A. M. Bailey and F. R. Dickinson
PRAIRIE SHARP-TAILED GROUSE

The Prairie Sharp-tailed Grouse

By ALFRED M. BAILEY

Springtime is a busy one in the grouse world, for the males of all species carry on their courtship antics for the benefit of the females. The dusky grouse sit on elevated perches—high up in the tallest of trees and boom away to their hearts' content, the far-reaching notes echoing among the valleys and mountain peaks having a ventriloquistic quality which makes the source hard to locate. The ptarmigan males find prominent knolls upon the tundra where they cackle their challenges to all the world, while the ruffed grouse pick out favorite strutting logs in the midst of their favorite cover and drum and strut for the edification of the female. The grouse of the plains have somewhat similar habits—the sage hen, prairie chicken and sharp-tails—in that the males return year after year to a favorite performing ground. When dawn begins to filter over the prairie, the males come in groups to go through their antics and while the performances are somewhat similar yet they are radically different. The prairie chicken can be heard for a long distance even though the booming note is not particularly loud, while the prairie sharp-tailed grouse (*Pedioctes p. campestris*) can be heard only a short distance.

This past spring Mr. F. R. Dickinson, President of the Chicago Academy of Sciences, and I were invited by the late Frank Schmidt to photograph some birds he was studying near Babcock, Wisconsin. He had erected a blind, and had weather conditions been favorable, the situation would have been ideal. Unfortunately, a veritable cloud-burst descended upon us the first afternoon and the following morning a chill breeze nearly paralyzed us as we awaited in our tar paper blind the coming of the sun and the return of the grouse, which we had frightened on our arrival.

The birds came to the strutting grounds before daybreak—a dozen in this instance—and they danced until well after sun up. This performance is a rapid affair, much more so than the prairie chicken, and while the latter is an individualist—carrying on in his own way when the female approaches—the sharp-tails dance in unison. Our birds were scattered over an area of 1,500 square feet; they inflated small purplish pouches on the side of their necks, and made low cooing notes which were not audible for any distance, but with necks outstretched, wings extended, spread tail erect, and feet stamping, they made staccato, machine gun like sounds as they whirled about, facing a female. The performance seemed almost incredible—the rapidity with which they moved—the noise they made with stamping feet—and the perfect timing. They moved in unison, pounding their feet and quivering their wings, while one might have counted ten and then, as though at a given signal, the performers paused and remained absolutely motionless—all wings and necks outstretched. Then, again, as though by command, the birds started whirring and rat-tat-tating

their feet upon the frozen ground. Occasionally, one in his exuberance would rise from the arena and alight upon the tar paper roof of our blind, his fast moving feet sounding as though a dozen pileated woodpeckers were trying to riddle our ceiling.

It was apparent that this performance in unison was for the delight of the female, because the antics were different when the ladies were absent. Then the grouse would run at each other as though to die in mortal combat but they invariably backed away without touching each other. Frank Schmidt said they actually fought earlier in the season, however. They would crouch, eyeing each other, as though to make sure no one should attack them; oftentimes three or four birds were in groups upon the ground, and then one or two would become wearied of the inactivity and would rise, stretch out their wings, and dance away for a short distance.

The females came to this performing place to be mated and it was evident by the enthusiasm with which the actors played their part, that they were attempting to excite the interest of the lady.

That bit of prairie country adjacent to Babcock is a reminder of what our western country was in early days; beaver have dammed the little streams meandering through the willow marshes, blue-winged teal and shoveller ducks sat about in pairs waiting the time to start housekeeping, red-wings called from the marshes and the meadow-larks answered from prominent knolls about our blind. It was a gray day, for the rising sun had been unable to penetrate the dark mantle above, and the dull wind whistling over the lowlands made us wish we had been better prepared. But the birds did not seem to mind—our grouse danced on, or went through their pseudo combats until far later than they would have had the sun been shining; the loud resonant booming of their cousins, the pinnated grouse reverberated through the air (it was hard to tell the direction from which the sound came) and from a reedy marsh not far in front of our blind echoed that most wonderful call of all birds of the wild—the far-reaching, plaintive challenge of a pair of sandhill cranes. Springtime on the prairies in the olden times must have been a constant delight to the pioneer. As I think of young Frank Schmidt, a naturalist of great promise who had accomplished so much in a short time, I am reminded of other young naturalists of this region of an early day, who saw the prairie at its best—Robert Kennicott, who, like Frank, was not destined to live the allotted three score ten, but died in the midst of his studies. They were of the same breed as were Edward Nelson and Robert Ridgeway, workers of our area who were allowed to live eventful lives, and to pass on to coming generations the results of their years of activity. In Wisconsin, Frank Schmidt had been carrying on an intensive study of the grouse and I like to think that his energetic work will be continued by others, and will result in an understanding of our prairie forms that will enable us to preserve them for all time.



Photograph by A. M. Bailey

THE GROUSE WOULD CROUCH, EYEING EACH OTHER

Nostalgia In Florida

'Tis spring in the cold North. If I were there
I'd hear the raucous crows, the shrilling hawks declare
The season. There would be reluctant snow
In shadowed hollows. Even so,
Along its crisped edge there would be seen
Small gallant plants that struggled to be green:
And from the copse, across the field away,
I'd hear the lusty calling of a jay.

Spring, too, in the hot South where now I lie.
The kites and buzzards, in a cloudless sky,
Perform their prodigies of graceful flight
O'er palms and pines and living oaks, bedight
With festooned moss. A dreamy mindlessness
Approves the Green of plummy cypresses;
But starts, awake, when comes from yonder "bay"
The old, familiar fluting of a jay.

EDWARD R. FORD.

Evanston Bird Club

A report of the activities of the Evanston Bird Club for the year 1935 seems all too meager, but on second thought, perhaps any one of several things accomplished would at least justify our existence. Even if no special projects could be mentioned, we like to feel that the mere existence of such an organization, contributes something to the life of the community. We are here to keep alive the thought of our native wild birds.

In spite of many losses in membership thro death and removal, there are at present more than fifty people who think it worth while to contribute their support, a small but heartening number of whom are contributing members.

The outstanding event for which we were responsible last season was the lecture with motion pictures, by William L. Finley of Portland, Oregon. In this last group of films, "Where Rolls the Oregon," Mr. Finley has devoted himself to the cause of Conservation, with convincing effect. It is a subject dear to the hearts of all lovers of wild life and the Bird Club was especially glad to help give people an awareness of its importance.

The lecture was given under the joint auspices of the Bird Club and the Woman's Club, through the friendly co-operation of the latter's program chairman, Mrs. Guy M. Pelton. The large auditorium was well filled, about four hundred people greeting the well remembered speaker. (No admission charge was made.)

Our series of Bird Walks in the Spring, to which everyone is invited, is undoubtedly our most popular enterprise. These take place every Friday from late April until the end of May, starting at nine o'clock in the morning from the nearby Forest Preserve which we reach by automobile, the "walk" being taken through the woods and fields along the river. This year attendance reached a high mark averaging about 20 each time. The question now is what shall we do for more leaders? Mrs. C. D. Hardy is the capable chairman of the Walks Committee.

Our sets of fine stereopticon slides of birds were used almost continuously in the public schools and elsewhere during the Spring months, particularly by Miss Barker, Miss Hollweg and Miss Denke. Informal talks were given by the president and the secretary—especially the latter, to various organizations, including Orrington School Assembly, Nichols School, Religious, Education and Church groups, Arden Shore Camp on the North Shore, Garden Club group of Junior League of Evanston and others.

The Evanston Public Library, which is largely indebted to the Bird Club for its excellent collection of books on birds, received its usual contribution. Membership in the Illinois Audubon Society, as well as in the National Association, is always maintained, thus keeping us in touch with the wider field of activity in the same interests. Copies of the Audubon Bulletin for 1934-35 were distributed to all members.

BERTHA T. PATTEE.

Notes From the Barrington Bird Club

The Barrington Bird Club was organized in September, 1926, affiliated with the Illinois Audubon Society in 1933, and was active through 1935 with a membership of thirty-five. The principal project has been a bird sanctuary; the present location is owned by the Barrington Park Board, with the Bird Club in full charge of the planning and management (permanence and protection are assured by the Park Board). The first planting of the hundred and eighty-nine shrubs has been about ninety-nine percent successful, the shrubs have thrived, made growth, flowered and born fruit and seeds, feeding what birds have come there this winter. Robert Plagge, a member of the Bird Club and a Boy Scout, has been appointed to place grain in the feeding stations and suet in the cages—additional funds for this project were raised at the Second Annual Lawn Fete, held on the lawns of the R. G. Plagge home Tuesday evening, August 13.

Early last spring a bird house contest was held in the public schools of Barrington—pamphlets were in the hands of the room teachers who taught the principles involved, and the children were encouraged to judge the houses themselves and guess which houses would win first, second and third places.

Eight well attended meetings were held in 1935; three programs were devoted to identification and study, and two to conservation. There was one book review, "The Island of Penguins" by Cherry Kearton, and two programs were given on the ethical and cultural aspect of bird work. The club meets in the various homes, and field work, hikes, and outings are taken in the region near Barrington, where "bird people" are unusually welcomed and humored in all seasons and weathers. An unusual record locally is the Flicker that is wintering with Mrs. Donovan north of Barrington. Mrs. Pretzel's greatest joy is the Tufted Titmouse she has in her yard while other birds observed are White-breasted Nuthatch, a pair of Hairy Woodpeckers, Downy Woodpeckers and numbers of Brown Creepers. This yard is four and one-half miles north of Barrington on the shores of Lake Zurich. Mr. and Mrs. Prentice are observing a flock of Pheasants, numbering from sixteen to thirty hens and five or six cocks. They are attracted to a corn patch adjoining the Prentice yard which is well within the city limits.

MRS. C. R. STOUT.

On March 4, 1935, we were driving on route 72 near Davis Junction when a flock of twenty-five or more Western Meadowlarks alighted in a field close to the road and broke into song.

There were eight loons on Lake Zurich March 26, and about thirty ducks (Baldpate, Pintail, Black, and Mallard) in a small field pond near Barrington. Many Coots gather on the lake in early April, remaining for a week or longer. April 7, nine species of ducks, a few Pied-billed Grebes, three or four Loons and about forty Red-breasted

Mergansers were observed on the lake. Of the latter, males are in the majority.

The high point of the bird year for me was the discovery of two Clay-colored sparrows feeding on seeds we had scattered on our drive. We had long looked for this bird unsuccessfully; the two were about our place for five days, coming close to door and window on the brick porch where food was scattered.

A Catbird I banded in June of 1934 (an adult male) was back at our food shelf May 14. Robins built again in a low tree close to the door. On May 4 the eggs were missing. Some time later a Mourning Dove was seen examining the nest where a white egg was afterwards found. This was seen to be punctured shortly, and then it also vanished. We suspect a squirrel as one was seen hunting through the tree a week or so later.

In the past two years we have had the following birds nesting in boxes about our place: Wren, Flickers, Chickadee (1934), Bluebird, Sparrow Hawk, Crested Flycatcher (1935), Starling, Purple Martin. The entire summer population numbers between forty and fifty species. Our winter list is made up of the following: Rough-legged Hawk, Red-tailed Hawk, Screech Owl, Hairy and Downy Woodpeckers, Blue Jay, Crow, Chickadee, White-breasted Nuthatch, Brown Creeper, Starling, Junco, Tree Sparrow. The Red-headed Woodpecker has not passed the winter with us since 1931.

Lincoln Sparrows paused on October 8 the past fall, the song leading to their discovery. We have seen them nearly every spring and fall for several years.

The clamor of Crows called our attention to a Barn Owl being mobbed by about twenty of them on November 14.

RUTH WORK (Barrington, Ill.)

Last spring when the Baltimore Orioles returned and began hunting a homesite, I put threads of many colors and textures on the rustic fence surrounding the garden.

Mrs. Oriole used any and everything, cotton strings both hard and soft twists, and woolen yarns in all colors, but she definitely proved that she preferred the neutral tones, always taking the white and creams first, then tans, yellows and browns, then blues, greens and purples, and if no others were available she would use the reds.

The site chosen for her nest was a very low-hanging limb over the garden which afforded a splendid view of the building operations. After making a skeleton framework, she filled in solidly the north and east sides first. The finished home was a veritable "Joseph's Coat"!

I discovered that she had lined it with the soft combings from the dog's winter coat when I saw a saucy little Wren dropping the hairy lining to the ground, singing lustily while he destroyed his neighbors' home. The orioles were so discouraged they abandoned the nest, much to my sorrow. I hope to repeat the experiment next year.

JOSEPHINE P. HIGGINS (Barrington, Ill.)

Notes From Fulton County

The weather this year was very poor for observation. On days on which I was free to take a trip the weather was that preceding a storm, the visibility was poor and I find that during such periods the birds are inactive.

The finest weather for observation is after a fresh snow with a temperature of 20° to 30° F. with the sun shining. Visibility at such times is at its very best and all bird life will be moving. Snow gives one an excellent opportunity to observe those birds which feed on the ground or on the weed heads.

The Quail population is very low. On my trips this year I found only one covey where last year I found three although those found last year were very small while the one I found this year consisted of fourteen birds. The Quail suffer from the extended season on rabbits which place hunters in the field until spring. This would not be so serious if it were not for the snowfall which places the Quail at a serious disadvantage. I also feel that the change in the open season on Quail this year was a mistake.

Increased rainfall during the past season resulted in a fine growth of plants of all kinds the seeds of which are now furnishing an abundance of food for the seed-eating birds. I note greatly increased numbers of Song and Tree Sparrows, Juncos and Goldfinches. I also find these birds slow in coming in to my feeding stations due I believe to an increased food supply in the field.

I urge that you bring the Snyder Bros. Nursery to the attention of your readers. I believe they have the most complete stock of shrubs and trees, beneficial to birds, of any nursery in the middle west. If we wish to have birds around our homes it is necessary that we also plant trees and shrubs for their protection and food supply. By planting trees, shrubs and vines on my premises I have increased the nesting bird population by at least ten times greater than it was six years ago.

I also wish to report that all the pupils of the Fiatt school are members of the Junior Audubon Club of that school. This result I feel is due to the splendid co-operation of the teachers.

We still have with us that predator which preys on all Illinois wildlife which is a politically controlled Conservation Department. I feel that the first major objective of all conservation societies in this state should be the starting of a movement for the establishment of a non-political game commission and to this end all conservation societies within the state should unite their efforts. If we carry this movement to a successful conclusion we will have removed one of the greatest obstacles standing in the path of practical conservation. This has been proven by our neighbor the State of Iowa. I also urge that you bring to the attention of the public the fact that the Illinois Conservation Department has not issued a public report since 1930. There can only be one reason for the refusal of the officials of that Department to issue a report and that is for the purpose of concealing their inefficiency.

HAROLD AULT, Fiatt, Ill.

Warblers of Rock Island County In 1935

My hobby since 1922 has been bird study and most of the following years as accurate a migration list as time permitted was obtained. The past year 197 species were found in Rock Island County, 36 of which were warblers. The latter are as follows:

Black and White Warbler—April 24 to May 23; common between May 10 to May 22.

Prothonotary Warbler—April 29; most common May 14 and by May 23 only summer residents left.

Bachman Warbler—One on May 14; only once before have I found this rare warbler, on May 21, 1926. This year the bird was observed for twenty minutes only five feet away. The black cap and breast patch and white on tail were clearly seen.

Golden-winged Warbler—Several found May 12.

Lawrence Warbler—One May 12, the only one I have ever recorded. Good views of the bird obtained.

Blue-winged Warbler—May 13 and 20, common on first date.

Tennessee Warbler—April 29; common May 14 to 22.

Orange-crowned Warbler—common May 13, one day only.

Nashville Warbler—May 10 through May 22.

Parula Warbler—May 14 two males. Former dates for this rare warbler are May 13, 1926 and May 10, 1933.

Yellow Warbler—common April 26 through May 23, summer resident.

Magnolia Warbler—May 12 to May 22.

Cape May Warbler—May 12 to May 22 but only a few birds seen. In 1933 they outnumbered all other warblers.

Black-throated Blue Warbler—May 12 through May 17, on May 19 a few females found.

Myrtle Warbler—April 12 to May 20.

Black-throated Green Warbler—May 8 to May 14; common May 12.

Cerulean Warbler—May 12 one; May 20 one.

Blackburnian Warbler—April 28 to May 14, common last two days.

Sycamore Warbler—May 12 one bird; only other date May 15, 1934—coloring and habits noted.

Chestnut-sided Warbler—May 12 to May 23, common except only a few on the 19th.

Bay-breasted Warbler—May 12 to 14.

Black-poll Warbler—May 14 through May 30 common May 20 to 23.

Pine Warbler—one found in the spring but common September 13.

Prairie Warbler—May 5, one.

Palm Warbler—April 26 through May 8.

Yellow Palm Warbler—April 29 few; this species found for the first time last year and were numerous.

Oven-bird—May 8 through May 17.

Water-thrush—May 12 through May 20.

Louisiana Water-thrush—April 26 through May 19, common May 14.

Connecticut Warbler—May 21, one found.

Mourning Warbler—May 15, one.

Yellow-throat—April 26 to May 24. This last date they were still common; summer resident.

Yellow-breasted Chat—May 19, one found.

Wilson Warbler—May 14 through May 22, rather common May 14. Through an oversight this species was omitted in the recent list of The Birds of the Chicago Region.

Canada Warbler—May 20 and 22.

American Redstart—April 26 through May 24, common. One with nest May 20.

Besides these warblers listed for 1935 the following have been found: Worm-eating Warbler 1926 and 1933; Brewster Warbler May 16, 1933; Kentucky Warbler May 19, 1926.

On May 19 the local newspaper contained an item that might be of interest. It stated that seven pelicans spent their time in a small pond and flew over the town of Bureau, Ill. several times. They had been there several days and had been viewed by hundreds of people.

ELTON FAWKS.

The Mockingbird and Bald Eagle in Rock Island Co., Ill.

On May 30 about 2 P. M., a Mockingbird was heard singing in the top of an apple tree in the front yard of our home, three miles southeast of Port Byron. It sang in the apple tree about five minutes and was again heard singing in the garden half an hour later. It then disappeared and was not seen or heard again. It imitated many other birds and sang beautifully.

The following item about the Bald Eagle breeding in the upper end of Rock Island Co., Ill., was published in the Port Byron Globe, May 9, 1935—A baby bald eagle, found on the Edward Stewart farm near Port Byron is on display at Rock River Poultry Market in East Moline. The mother of the bird was one of the largest seen in this vicinity for many years. It was estimated that it had a wing spread of six feet from tip to tip. A young ground hog was found in the nest. This had been captured by the mother for food for the young. The farm on which the Eagle's nest was located, is about five miles north of our place. I am not acquainted with the owner of the farm and did not have an opportunity to go and see the nest.

JOHN J. SCHAFER.

Christmas Census of 1935

The second annual census of the winter bird life of Illinois was undertaken during the holiday week of 1935, and although inclement weather prevented many from participating, a good list of birds was compiled. Five less species were observed this season than last—fifty-five against sixty for 1934, but nevertheless, a few interesting birds were recorded. The Rusty Blackbird, for instance, was noted in the Chicago Area for the first time since 1906—so far as our records go—and was observed in two localities, LaGrange and along the Des Plaines River near Park Ridge.

Comparatively few observers have sent in observations and we hope that another season will result in greater activity, especially among bird students who live outside of the Chicago Area. We realize that birds are observed in such small numbers in winter that occasionally one has little to show for energy expended, but it is only through combined efforts that we will be able to make an accurate census. As in last year's report, we have grouped the observations according to counties, listing those of the Chicago Region first.

Riverside, Cook Co., Ill. (along Des Plaines River and Salt Creek to the county line and back to LaGrange) December 22; 8:30 A. M. to 2:30 P. M. Light snow falling all day; moderate s.w. wind; temp. 20°, observer alone. Pheasant 2; Hairy Woodpecker 3; Downy Woodpecker 6; Blue Jay 3; Crow 3; Chickadee 8; Tufted Titmouse 10; White-breasted Nuthatch 5; Brown Creeper 5; Robin 1 (feeding on smilax berries); Golden-cr. Kinglet 10; Cardinal 12; Purple Finch, flock of 11 including but 1 adult male; Goldfinch 4; Junco 75; Tree Sparrow 50; Song Sparrow 2. Total—17 species.—Frank A. Pitelka.

Evanston, Cook Co., Ill. (from Evanston to Harms Woods and return) December 31, 1935, January 2 and 4, 1936; temp. 40°, 42°, 38°, sky dark and ground snow-covered. Red-tailed Hawk 2; Pheasant 5; Herring Gull 14; Hairy Woodpecker 1; Downy Woodpecker 1; Crow 6; White-breasted Nuthatch 1; Starling 5; Junco 50; Tree Sparrow 100. Total—10 species.—Hugh Howard.

Blue Island, Cook Co., Ill. (South side of Chicago, Ill.) December 25, 9 A. M. to 4:30 P. M. West wind; snowing hard at times; snow on ground; temp. 0° to 15°. Three observers at two different places 15 miles by auto. Most of the observing was done at Blue Island and Palos banding stations. Marsh Hawk 1; Sparrow Hawk 3; Herring Gull 1; Screech Owl 5; Hairy Woodpecker 10; Downy Woodpecker 16; Blue Jay 8; Crow 12; Quail 8; Chickadee 18; Tufted Titmouse 8; White-breasted Nuthatch 1; Red-breasted Nuthatch 1; Carolina Wren 1; Robin 1; Hermit Thrush 6; Golden-cr. Kinglet 2; Pipit 50; Starling 6; Cardinal 1; Purple Finch 5; Pine Siskin 2; Goldfinch 50; Junco 30; Tree Sparrow 4; Song Sparrow 4. The Carolina Wren and Hermit Thrush are banded birds. The Hermit Thrush was banded December 22 and repeated on the 25th. Total—26 species.—Alfred H. Reuss, Karl E. Bartel, Frederick C. Labahn.

Park Ridge, Cook Co., Ill. (Along the Des Plaines River between Lawrence Avenue and Algonquin Road and over adjacent country). Birds recorded on hikes taken on the 24th, 26th and 27th of December and on January 1. Mallard Duck 1; American Goldeneye 4; Red-tailed Hawk 2;

Red-shouldered Hawk 3; Rough-legged Hawk 1; Marsh Hawk 2; Sparrow Hawk 1; Hungarian Partridge 6; Pheasant 7; Herring Gull 8; Flicker 2; Yellow-bellied Sapsucker 1; Hairy Woodpecker 6; Downy Woodpecker 14; Prairie Horned Lark 25; Blue Jay 8; Crow 44; Chickadee 25; Tufted Titmouse 7; White-breasted Nuthatch 5; Brown Creeper 11; Robin 1; Golden-cr. Kinglet 9; Starling 40; English Sparrow 100; Redwing 1; Rusty Blackbird 1; Cardinal 34; Purple Finch 3; Goldfinch 16; Junco 64; Tree Sparrow 153; Song Sparrow 5; Lapland Longspur 25. Total—34 species. The unusual number of hawks is probably due to the mouse population which is greater than it has been in previous winters. The mallard was found in a field and was easily identified by both the color and its quack. The river, at the time, was frozen in most places and it was quite a surprise to find the mallard. The rufous tails of the Hungarian Partridges along with their size served to identify them. The sapsucker, kinglets, redwing, rusty, purple finch, and goldfinch were all seen at short distances with 8X glasses and distinctive characters noted. The typical calls of all but the sapsucker were heard but the longitudinal white wing bar identified it.—Frank Wadsworth and Donald Duncan.

✓**River Forest, Cook Co., Ill.** (Thatcher's Woods Forest Preserve) Dec. 31; 2:30 to 3:30 P. M. No wind, temperature 32°. Junco 10; Chickadee 3; Brown Creeper 1; Downy Woodpecker 1; Hairy Woodpecker 1; Starling 60; Ring-billed Gull 3. Total—7 species.—C. W. G. Eifrig and C. T. Black.

✓**River Forest, Cook Co., Ill.** (Vicinity of Trailside Museum during Christmas week) December 24-31. American Merganser 3; Red-tailed Hawk 1; Bob-white 6; Pheasant 2; Herring Gull 7; Screech Owl 1; Hairy Woodpecker 1; Downy Woodpecker 2; Prairie Horned Lark 3; Blue Jay 5; Crow 3; Chickadee 8; White-breasted Nuthatch 2; Brown Creeper 1; Brown Thrasher 1; Starling 11; English Sparrow 15; Cardinal 3; Pine Siskin 12; Goldfinch 1; Junco 21; Tree Sparrow 9. Total—22 species. While it is too late for the Christmas Census, I should like to record an immature Big Blue Heron which was captured at Camp Park Ridge along a tributary of the east side of the Des Plaines River on January 9. It was brought to the Trailside Museum by R. De Bower. The bird had both feet frozen, and although it was turned over to the expert care of Mr. Karl Plath, it did not live.—Gordon Pearsall.

✓**Barrington, Cook Co., Ill.** (Observed about home during holidays). Red-tailed Hawk; Marsh Hawk; Screech Owl; Hairy Woodpecker; Downy Woodpecker; Blue Jay; Chickadee; Nuthatch; Starling; English Sparrow; White-throated Sparrow; Tree Sparrow; Towhee. (The latter was observed first December 26 and on January 10 was still about, feeding each day at Pheasant pens. This is the second winter record for the region, the other being January 5, 1933.) Total—13 species.—Olive McDowell.

✓**LaGrange, Cook Co., Ill.** (Wolf Road at 47th to Joliet Road, Vaughan's Nursery, Meadows, and Virgin Forest) Dec. 24; 8:30 to 11:30 A. M., cloudy, northwest wind and light snow. Marsh Hawk 1; Horned Lark 1; Crow 13; Lapland Longspur 20; Tree Sparrow 25; Slate-colored Junco 5; Brown Creeper 1; White-breasted Nuthatch 2; Chickadee 1. Total—9 species.—Esther A. Craigmile.

✓**La Grange, Cook Co., Ill.** (Along Salt Creek to Camp Bemis) Dec. 28; semi-clear, no wind, mild. Pheasant 5; Saw-whet Owl 1; Downy Woodpecker 4; Blue Jay 1; Chickadee 8; Tufted Titmouse 5; White-breasted Nuthatch 6; Brown Creeper 2; Golden Kinglet 1; Starling 2; English Sparrow 20; Red-wing 1; Rusty Blackbird 1; Cardinal 10; Tree Sparrow 3; Song Sparrow 1. Total—16 species.—Muriel and A. M. Bailey.

✓**Orland, Cook Co., Ill.** (Vicinity of Orland Slough), Dec. 22. Mallard;

American Golden-eye; American Coot; Herring Gull; Ring-billed Gull; Hairy Woodpecker; Downy Woodpecker; Blue Jay; Crow; Tufted Titmouse; White-breasted Nuthatch; Robin; Golden cr. Kinklet; Goldfinch; Junco; Tree Sparrow. Total—16 species.—Dr. Alfred Lewy.

¹**Lisle, Dupage County, Ill.** (Morton Arboretum) December 29: 9 A. M.-4 P. M. Light snow fall in the morning, partly cloudy with moderate n.e. wind in the afternoon; temp. 25°. Observer alone. Red-tailed Hawk 1; Pheasant 8; Hairy Woodpecker 1; Downy Woodpecker 3; Blue Jay 1; Crow 8; Chickadee 8; Tufted Titmouse 4; White-breasted Nuthatch 4; Red-breasted Nuthatch 1 pair; Brown Creeper 8; Robin 1; Golden-cr. Kinglet 10; Cardinal 8; Redpoll, flock of 12; Goldfinch, flock of 4, later 1; White-winged Crossbill 2 adult males; Junco 50; Tree Sparrow 25; Song Sparrow 2. Total—20 species.

The White-winged Crossbills were seen in the rather extensive growth of planted spruces, averaging 12 ft. in height, in the western section of the arboretum. Both were adult males, but one was a very rich pink with conspicuous white wing patches, while the other was younger, and of a brownish pink color. I was first attracted by a soft trill, which they uttered evidently upon my interruption of their feeding. Previously during the day I had seen spruce cones that showed evidence of birds feeding upon their seeds.—Frank A. Pitelka.

^{2,30}**Waukegan, Lake Co., Ill.** (In Lyon's yard in Waukegan, and along Lake Shore) Dec. 22 to 28. Southeast wind, snow, temp. 20°. American Golden-eye 1200; Old-squaw 2; Red-breasted Merganser 175; Marsh Hawk 1; Pheasant 2; Coot 1; Herring Gull 650; Flicker 1; Hairy Woodpecker 2; Downy Woodpecker 5; Blue Jay 2; Crow 8; Chickadee 1; White-breasted Nuthatch 2; Red-breasted Nuthatch 1; Robin 1; Starling 25; English Sparrow 250; Redpoll 2; Goldfinch 5; Junco 8; Tree Sparrow 45; White-throated Sparrow 1; Song Sparrow 1. On later trip observed 8000 ducks



THE WINTER OBSERVERS

A fine "list" was obtained on a cold, blustery day

too far out in Lake Michigan to identify, also 2000 gulls. Total—24 species.—H. E. McArthur and Wm. I. Lyon.

Batavia, Kane Co., Ill. (Fields and woods along the Fox River). Dec. 29; clear and mild. American Merganser 7; Red-tailed Hawk 1; Red-shouldered Hawk 3; American Rough-legged Hawk 1; Marsh Hawk 3; Bob-white 5; Pheasant 3; Herring Gull 4; Screech Owl 1; Short-eared Owl 4; Red-headed Woodpecker 1; Hairy Woodpecker 1; Downy Woodpecker 3; Horned Lark 2; Blue Jay 3; Crow 4; Chickadee 6; Tufted Titmouse 2; White-breasted Nuthatch 4; Brown Creeper 2; Northern Shrike 1; Starling 7; English Sparrow 20; Meadowlark 1; Cardinal 2; Redpoll 7; Pine Siskin 6; Junco 7; Tree Sparrow 9. Total—29 species.—Gordon Pearsall.

Port Byron, Rock Island Co., Ill. (Fields and woods three to four miles southeast) Dec. 22; 9 A. M. to 2:30 P. M., cloudy, ground covered with snow, snowing in the P. M., south wind, temp. 15° to 29°. Rough-legged Hawk 1; Bob-white 8; Screech Owl 2; Great Horned Owl 2; Red-bellied Woodpecker 1; Red-headed Woodpecker 1; Hairy Woodpecker 4; Downy Woodpecker 7; Blue Jay 10; Crow 5; Chickadee 4; Titmouse 2; White-breasted Nuthatch 5; Brown Creeper 1; Starling 2; English Sparrow 25; Cardinal 2; Junco 10; Tree Sparrow 25. Total—19 species.—John J. Schafer.

Monticello, Piatt Co., Ill. (Along the Sangamon River on the property of Will Lodge), Jan. 1; overcast and warm. Red-tailed Hawk 1; Bob-white 10; Flicker 5; Red-bellied Woodpecker 15; Hairy Woodpecker 3; Downy Woodpecker 15; Blue Jay 12; Crow 10; Chickadee 25; Tufted Titmouse 50; White-breasted Nuthatch 14; Brown Creeper 1; House Wren 1; Winter Wren 1; Carolina Wren 6; Golden-cr. Kinglet 13; Starling 14; English Sparrow 40; Cardinal 6; Goldfinch 2; Junco 25; Tree Sparrow 30. Total—20 species.—E. G. Wright, R. V. Komarek, A. M. Bailey.

Ottawa, La Salle Co., Ill. (Along Illinois River to Utica on both sides of the river) Dec. 22, 25, 27, 29 and Jan. 3. Mallard 2,500; Black Duck 1,000; American Golden-eye; Lesser Scaup 24; American Merganser 8; American Rough-legged 2; Marsh Hawk 2; Sparrow Hawk 2; Bob-white 87 (5 coveys); Coot 1; Herring Gull 75; Ring-billed Gull 60; Bonaparte's Gull 1; Mourning Dove 1; Screech Owl 1; Horned Owl 1; Barred Owl 2; Belted Kingfisher 2; Flicker 2; Red-bellied Woodpecker 7; Hairy Woodpecker 11; Downy Woodpecker 46; Horned Lark 18; Blue Jay 14; Crow 48; Chickadee 26; Tufted Titmouse 53; White-breasted Nuthatch 14; Brown Creeper 17; Winter Wren 8; Carolina Wren 10; Golden-cr. Kinglet 3; Ruby-cr. Kinglet 1; Cedar Waxwing 2; Starling 1,000; English Sparrow 600; Red-wing 700; Rusty Blackbird 800; Cardinal 52; Purple Finch 4; Goldfinch 2; Junco 350; Tree Sparrow 650; Song Sparrow 42. Total—44 species.—Frank Bellrose, Jr.

Piatt, Fulton Co., Ill. (A composite list made on four trips within six miles of Piatt between December 22 and January 1.) Weather unsettled, snow. Birds listed show largest number observed in one day. Temp. 30° to 34°. Sharp-shinned Hawk 1; American Rough-legged Hawk 1; Marsh Hawk 1; Bob-white 14; Mourning Dove 2; Flicker 2; Red-bellied Woodpecker 25; Red-headed Woodpecker 1; Hairy Woodpecker 4; Downy Woodpecker 14; Blue Jay 30; Crow 12; Chickadee 67; Tufted Titmouse 61; White-breasted Nuthatch 46; Starling 43; Cardinal 29; Purple Finch 1; Redpoll 4; Goldfinch 11; Junco 48; Tree Sparrow 67; Song Sparrow 42; Unidentified Hawk 1. Total—22 species.—Harold Ault.

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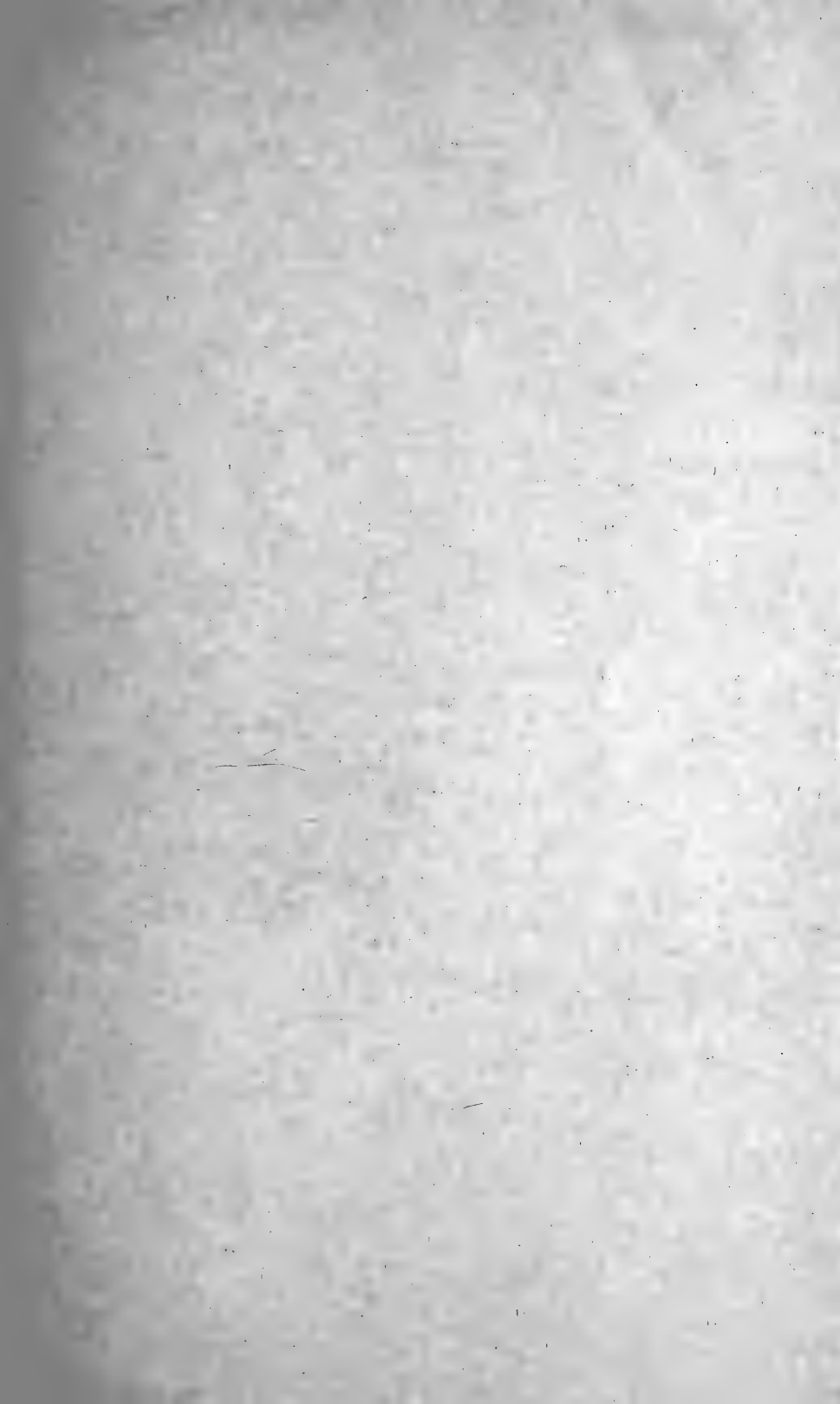
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THE AUDUBON ANNUAL BULLETIN



Number 27
1937

PUBLISHED BY
THE ILLINOIS AUDUBON SOCIETY
The Chicago Academy of Sciences
Lincoln Park at Clark and Ogden Ave.
Chicago, Illinois

Natural History Survey

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THE ILLINOIS AUDUBON SOCIETY

For the Protection of Wild Birds

Affiliated with

The Chicago Academy of Sciences

Lincoln Park at Clark and Ogden Ave.

Chicago

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CONTENTS

Wool Shirt Wandering.....	<i>Anonymous</i>	5
The Opportunity of Bird Banding.....	<i>Margaret Morse Nice</i>	9
The Marsh	<i>W. J. Beecher</i>	14
Population Studies in Chicago Birds.....	<i>Rudyard Boulton</i>	17
Reminiscences of Early Experiences in the Chicago Area	<i>Benjamin T. Gault</i>	19
Winter Birds of Park Ridge.....	<i>Donald Duncan</i>	21
A Study of the Eastern Song Sparrow....	<i>Henry Mousley</i>	24
Outlook and Duties for 1937.....	<i>C. W. G. Eifrig</i>	27
Our Board of Directors.....	<i>C. W. G. Eifrig</i>	28
First Record of Common Terns Nesting in Illinois	<i>W. I. Lyon</i>	29
Notes from the Barrington Bird Club.....	<i>Mrs. Clifford Stout and Mrs. Robert Work</i>	30
A Day in January.....	<i>Amy G. Baldwin</i>	30
Bird Seed	<i>G. W. Risley</i>	31
Bird Conservation in Adams County.....		32
A Notable Goose-Swan Incursion.....	<i>C. W. G. Eifrig</i>	34
A Bird Bath	<i>Esther A. Cragmile</i>	34
1936 Nature Diary.....	<i>T. E. Musselman</i>	36
The Pokagon Conservation Club.....	<i>Hugo Zeiter</i>	45
Christmas Census of 1936.....		46
A Financial Statement.....		48
The International Committee for Bird Preservation		49
The Audubon Nature Camp for Adult Leaders		50



"a Screech Owl gives his quavering lament,—"

THE AUDUBON BULLETIN

1937

Wool Shirt Wandering

BY AN "O. D." DEVOTEE

"I set apart a day for wandering;
I heard the woodlands ring;
The hidden White-throat sing,
And the harmonic West,
Beyond a fair hill-crest,
Touch its Aeolian string.
Remote from all the brawl and bruit of men,
And iron tongue of trade,
I followed the clear calling of a wren
Deep in the bosom of a sheltered glade,
Where interwoven branches spread a shade
Of soft, cool beryl like the evening seas
Unruffled by the breeze.
And there and there—
I watched the maiden hair,
The pale blue iris grass,
The water spider in his poise and pass
Upon a pool that like a mirror was.
I took for confident
The diligent, wee ant
Threading the clover and the sorrel isles;
For me were all the smiles
Of the sequestered flowers there abloom—
Chalice and crown and plume;
I drank the rich, ripe attars blurred and blent
And won—content!"

—CLINTON SCOLLARD.

The trapper, timber-looker, and globe-trotter wander alone; their purpose demands it. They are ever pushing onward, untiring, restless, eagerly intent upon the accomplishment of their tasks, impatiently striving for their goal. A companion might stay their feverish haste. Their maxim, indeed, is "He travels fastest who travels alone."

Another kind of wandering is the kind that two friends enjoy together, slipping away for a few hours from the routine of work when the mood arrives, donning wool shirts and well-worn boots, tossing together a few bits of bread, bacon and cheese, and setting out on a quest of pleasure, unhurried, appreciative of the world and of each

other, caring little where leads the road or when they return, but finding content.

Perhaps it is a tramp in the early morning across the dry prairie and through a bustling prairie-dog settlement for an *al fresco* breakfast on the sandy bank of a little stream bordered with cottonwoods and willows. What if the packs are heavy? The light, cool air of the sunrise time makes walking with a burden really delightful. The Kingbirds, taking their insect breakfast *a la cafeteria*, keep up an unmusical but not displeasing riot of sound. The delightful whistle of the Meadowlarks seems to come from everywhere and the Mockingbird, performing reckless acrobatic stunts in the air above the top of a huge cottonwood, flings to the world with carefree abandon his matchless medley of songs. Dickcissel, the diminutive optimist-bird of the wayside sings his rather monotonous little song with forgivable egotism as he sits on a bush "by the side of the road" and is a friend to man. Flapping from mound to mound, the Burrowing Owls send inquiring glances at you and make their funny little bows before dropping into a hole as you approach. You digress a little to examine the sedges in a small, marshy puddle and listen to the pleasant, liquid song of the Red-wing, which gives one the sweet-sour, shivery sensation experienced when eating the leaves of the sheep sorrel.

Among the willows on the bank of the sluggish creek, you prepare a tiny Indian cook-fire and a bed of coals right for the frying pan is soon ready. The bacon is tossed in and the air becomes filled with the delectable odor which in the midst of civilization is utterly commonplace and sometimes unattractive. Together you spread out the remainder of your luggage and while you arrange the tin plates and cups your companion fries eggs and pancakes—not the regulation, made-to-measure pancakes such as you buy in the cafés, but a new and individual variety such as he alone prepares and turns over with an upward toss of the pan. Then you eat. You eat everything to the last bit, topping off with bar chocolate from the capacious pockets of the wool shirt. Contentment? Well, something like it!

Perhaps you get out before the sunrise some morning in July or August. In the hush that precedes the dawn you build your diminutive cook-fire on the bank of some tiny rivulet and listen to the mating song of the Wood Thrush—those clear, wonderful low notes with the scarcely perceptible trill. Nothing is quite so beautiful in its calm, sweet sadness. Soon the Blue Jay appears with his imperious but not discordant cry. The Chat takes it up, and in a moment the Thrasher. In the distance you hear the summer song of the Cardinal. The Mourning Dove tells you again and again of his perfect contentment. Even the Wren in the orchard above seems less sprightly than usual. The breeze is not yet stirring; the very atmosphere is subdued. It is the typical midsummer morning, so different from the great, throbbing daybreak of the spring.

Your sputtering little smudge seems almost sacrilege; you feel as if the birds alone should greet the sun. You dispose of some ham and eggs perhaps, and settle back in the sand in a spot free from poison

ivy and answer with a smile of understanding the look from your friend which seems to say, "This, indeed, is the life!"

Again, your trip may be of a different nature. You paddle a loaded canoe along the banks of a wooded stream for an outing of a few days in the fall or during a bit of clement winter weather. You cheerfully unload and pack your duffle around the shallow riffles while your fellow wanderer works upstream with the empty canoe until deep water is reached again. Perchance a couple of squirrels fall to your 12-gun and you continue on the course which leads away from whistle signals and striking clocks. You put up your tent-lodge in a sheltered spot on the bank, collect great piles of dry leaves for your beds, cut a stock of firewood and make ready for the night. It is work—hard work—but you love it and do it happily. What matter if your "dinner" is not "served" until six-thirty, seven, or later. You have no conference, no social affair for the evening. You exult in your independence, in your freedom.

When the impulse comes you dress, or rather undress, the squirrels you are lucky enough to have obtained, and make a stew that is unequaled in civilization. The coffee boils and sends its aroma through the atmosphere. You dig out from your pack-sacks the other necessities for the meal and as night sinks down around you, black and cold, you sit under the camp light in the warmth of your friendship-fire and are content to live.

Here is where you know your friend; not through the medium of spoken words, for mostly you talk little and sometimes you are silent, but through a conscious nearness and subtle understanding that brings a feeling of trustfulness and confidence experienced nowhere else. A coyote howls, a Screech Owl gives his quavering lament; then all is quiet save the rippling water and the rustle of the wind through the last-year's leaves. Both of you feel the spell of the out-of-doors, the vastness of it, the mystery of it, but neither of you can put it into words. You draw your blankets more closely about you and in your fancy and the firelight travel enchanted dream-trails "where was never man before."

Or perhaps in the early spring you slip away some afternoon from the duties and restrictions of the city to some favorite spot along the rocky bluffs of a river. You investigate everything. You turn over great rocks trying to catch the swiftly moving skinks and pry the bark off old logs to watch the scampering beetles. You enjoy the *Erythronium* and the first violets and admire the May apples and Solomon's seal just pushing up through the thick layer of dead leaves. You scratch about in the moist, mouldy crevices for the land snails. You search for the first snakes that may be sunning themselves on the ledges. The early insects—wasps, dragon-flies, and an occasional *Grapta*—hold your interest. Old Man Corvus, the crow, a sable-garbed brigand returning from a neighborhood "cawcuss," glares down at you suspiciously, informing you with throaty mutterings of his displeasure at your invasion. In a nearby marsh choruses of leopard frogs and *Pseudacris* make trial of their repertoire in anticipation

of their concert for the night. You chat gaily as you move leisurely along, calling the attention of each other to each new object of interest. You enjoy everything with a child-like delight. Your mind relaxes from the strain of business or study and you consider only the present, for the past has been dead eons ago and the future is yet far, far in the distance. You are content to be alive and to rejoice with the living wild things about you.

When the inner man begins to insinuate need of refreshment, you find a suitable spot for the cook-fire, set up your camp grid, and toss the steak into the frying pan. As you finish the meal, the moon swings over the top of the bluff and fills the woods with mystic shadows. The frog chorus continues. The Screech Owl calls again; this time it is his love call which comes across the water and echoes along the ledges.

“Stars multiply. Wind shining paths
Across the heavens, paths that lead
To where in splendor glows the moon
New born and virgin in the sky.
Night comes with all her fairy troop;
The Wind attends her like a knight,
Whispers her words of love. Hours die.
Night holds her secret councils.”

—A. B. LEIGH.

You sit against a tree and enjoy the amiable conversation of your friend. You talk at length, and freely, of many things. With confidence and understanding, you invite and welcome that pleasant interchange of ideas and opinions. It matters not what you talk about or from what angle you approach it. You are fortunate indeed if your companion possesses that rare virtue of talkability. On no other occasion is it so greatly appreciated; in no other manner can there be experienced such mutual helpfulness. Long afterwards these campfire chats are cherished portions of memories most precious. You rest and find contentment in the comradeship of each other. Each of you receives new strength; you are both inspired. You return to the job of life with new appreciation of the sacred bond of friendship.

The wayfarer who travels for gold travels alone. The wanderer who seeks the wild for its own sake, for the joys of the wool shirt, tramps by the side of a friend, faithful and worthy. Together they seek, and win, content.

The Opportunity of Bird Banding*

BY MARGARET MORSE NICE

We now have the means of studying wild birds undreamed of a few years ago. In the first place we can actually handle our subjects. In the second place by means of both colored and aluminum bands we can follow the activity of known individuals in freedom throughout a season or perhaps for years.

Yet too many bird banders have not progressed beyond the earliest stage—before the invention of traps or colored bands—apparently believing that banding is merely a means of studying migration. So they capture as many birds as they possibly can, simply attaching the numbered band and that is the last they see or hear of the vast majority of their subjects. Many people would add more to our knowledge of bird life if they would study a score of birds carefully than merely tag a thousand.

Two things are necessary if we are going to make adequate use of our opportunities: first, a clear idea of problems to be studied; second, a knowledge of what others are doing.

The Bird in the Hand

Every bird captured should be carefully examined and its sex and age determined if possible. Wing and tail measurements often serve as indices of sex (Nice, '32). In the nesting season the incubation patch should be looked for; its presence or absence may tell the bird's sex, or perhaps give us new information as to the habits of the species, since the share of the sexes in incubation is not certainly known with many even of our common birds. The gradual appearance of these bare spots should be studied in relation to the laying of the eggs.

Some times young birds have pointed tail feathers in contrast to rounded feathers in adults. In the Song Sparrow (*Melospiza melodia beata*) this has proved true with the males, but in the females the feathers are more or less pointed regardless of age.

Every bird should be weighed at every capture, the time of day being noted, and temperature also, as it has been found that some birds weigh more during a cold spell than a warm one. Some species gain in fall, some in winter and some in spring, while others remain practically stationary throughout the year. In some species females average higher than males during the nesting season; is this merely a matter of the developing eggs, or do the birds put on fat in anticipation of the incubation period? When one finds a female Song Sparrow weighing 24 grams instead of the usual 20, or a female Cowbird (*Molothrus ater ater*) 45 instead of 38 grams, then one knows that this particular bird is in the midst of laying a clutch of eggs.

There are many interesting questions in regard to molt: the weight of the bird during this time; the duration of the process; its relation

*Reprinted, with permission, from *BIRD-BANDING*, vol. 5, 1934, p. 64-69.

to breeding and migration; the time of its onset in relation to sex, climatic conditions, the individuality of the bird, etc., etc.

"The colors of the eyes, bill, legs, and feet, and also cere, lores, and eyelids, which are naked in some species, change frequently in color from youth to maturity or with the seasons", wrote Forbush ('27). The color of the lining of the mouth and tongue should be noted, especially in young birds.

In much of this detailed work indoors the significance of the observations made depends on recognition of the individual outdoors, and also full knowledge of the status of its family affairs.

Field Study of Birds

For the field study of birds it is essential to use colored bands. The results of much good work in the past have been vitiated by the impossibility of absolute identification of the individual bird. Now at last we are ready to proceed on sure ground.

To catalog the different problems under life history studies would demand a long treatise. Every bird bander should diligently peruse the excellent list at the end of their "Manual" (Lincoln and Baldwin, '29). I shall confine myself to a few suggestions along lines which I have found particularly fruitful.

The question of territory is very much to the fore at present. Which birds are true territory holders and which are not? What is the purpose of territory?

The matter of song can be satisfactorily studied only in birds individually known. The relation of song to weather, time of year, nesting cycle, age of the singer—all these are important questions. Little has been done on studying the development of song, or the subject of the singing of the female. In which species does the male stop singing on the arrival of a mate, and when does he begin to sing again?

There are many important problems connected with the study of eggs which can only be answered with birds that are marked. Some of these questions concern: the time of beginning to lay; number of eggs in a set; number of sets ordinarily laid and greatest number possible; color in a set and in different individuals; size of eggs—in different individuals, in the same set, in succeeding sets, in succeeding years; shape of the eggs, inheritance of color, size and shape.

How are these phenomena influenced by:

Factors in the bird herself: age, inheritance, individuality?

External factors: increasing and decreasing light, temperature, precipitation; food; disturbances of all kinds, in the territory, or through Cowbird activities?

The Literature

The most fruitful source of suggestions for our own problems lies in the well planned, well organized researches of other investigators. It is impossible to do the best work without a fair idea of what others have done. Yet the task of keeping abreast of the literature of one's

subject grows increasingly difficult with the ever-growing array of articles that appear.

There are two major attempts to catalog the zoological articles of the world—The Zoological Record in England and Biological Abstracts in this country.

The Zoological Record, now in its 69th year, lists the articles by authors, giving title and reference. For 1932 there are 1385 entries under Aves. Next there is a subject index where the articles are arranged under all sorts of topics—migration, nidification, courtship, physiology, geography, etc., etc. Finally there is the systematic index with the articles arranged under each species. It will be seen that the Zoological Record is a reference source of great importance. It should be available in every large library, while the section on Aves may be purchased separately for 7 shillings 6 pence.

Biological Abstracts is a much more recent enterprise, having just completed its eighth year. As its name denotes, a brief account of the contents of each article is given. The papers under Aves are arranged under the following topics: General or Popular; Systematic; Life History; and Local or Faunistic; while references are also given to other bird papers abstracted under Ecology and other subjects. There is much valuable material in Biological Abstracts, but due to lack of funds it is not up to date, articles of 1930 and 1931 being in the majority at the end of 1933. It should be found in all college and large general libraries.

Those bird students who read German will find good reviews in *Vogelzug*, a quarterly journal with an excellent index at the end of each year, covering both original and reviewed material in the fields of banding, migration and life history.

The problem, of course, after one has found a reference, is to get hold of the article. If the journal is not in the library, it may be that the library will borrow it for the investigator. Or perhaps a reprint may be obtained from the author.

It has been planned in Bird-Banding to review the literature with the purpose of giving the greatest possible help to banders—to suggest problems and to give some definite facts that have been found by others. The usefulness of this department will depend on the support given to Bird-Banding; the larger the subscription list, the more space can be allotted to reviews.

Cooperative Study

Although good work can be done individually in life history studies, there are many general problems in bird biology that can be far better handled coöperatively.

Stevens ('32) after suggesting a number of subjects for research connected with "The problem of the return of the young birds", hopes "that such material can be brought together from many sources and combined into a few comprehensive reports rather than be published in a large number of short notes by individual workers. Coöperative

effort should result in better work as well as better presentation for those who may wish to read of it during later years."

The fine results of "Coöperative Ornithology" are summarized by McCabe (33b), who describes the "Report of Bird Migration in the Mississippi Valley", and nesting and wild fowl censuses in this country, and the "Census of British Heronries" and "Great Crested Grebe Inquiry" in Great Britain. The Indiana Audubon Society organizes the efforts of banders in that state and has published reports on the migration of several Indiana-breeding birds (Perkins, '32; Test '33).

Fields in which coöperation is especially called for are population and migration studies, studies on particular species, and keeping track of the literature.

Under population studies a number of problems suggest themselves: censuses; return of adults to breeding place; return of young to birth place; percentage of immature birds in the fall; percentage of first-year birds in the breeding population; success of nests; sex ratio; longevity, etc., etc.

Under migration problems there are the questions of the winter quarters, the migration route, the migratory or stationary status of each population of breeding birds, the great and difficult questions of migration and weather, and many, many other subjects of importance.

As to the study of species, could not people that are specializing on a particular bird club together to help each other, possibly one of them going to Washington to work up the data in the files of the Biological Survey, and then finally write a joint report?

As to the means of working out this scheme of coöperative research, I would suggest a central committee composed of Mr. Lincoln, Mr. Whittle and representatives from the four regional bird-banding associations, with sub-committees each with a rather definite problem to solve.

In conclusion, let me quote from McCabe's ('33a) discussion of banding: "The most delightful of occupations, with a world of human and scientific good to its credit, its ultimate justification lies in its concrete scientific value and nothing else."

We have a great opportunity and a definite responsibility. There is nothing in the world so wonderful as the discovery of truth. Let us plan our efforts so as to make the most of our opportunity.

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Photograph by A. M. Bailey.

A Pied-billed Grebe Covers Her Eggs.



Photograph by H. K. Gloyd.

The Marsh

BY W. J. BEECHER

There used to be a marsh in the early history of most of us that, for a time at least, made up an important part of our environment. It occupied a broad, open spot on the face of the earth, and the birds trilled and insects droned contentedly, and the sedge billowed away toward the distant woodlands all day long. Symbol of the wilderness that was, it drowns into focus now through a kind of dreamy haze—the Mist of Time perhaps. Or maybe it is the hot, fragrant breath of growing things, toiling upward in the sunlight. . . . For the marsh in those unforgotten days was a living, breathing thing.

Idyllic reflection of summers past! Sometimes it comes back to us limned in startling sharpness of detail:—there is the whinny of the Sora, the squawk of the Night Heron, the plaintive loneliness of the Spotted Sandpiper's note; . . . the sun goes down in a spuming of roselight . . . the night sky shadows up over the low-flung slough and fireflies flash momentarily in the darkling pockets of the woodland glens. A little screech owl quavers eerily, and across the fen the weird "bloop!" of the bittern sends its uncanny message tingling up the spinal cord. Fascinating to listen to the voice of the night marsh—the fine, thin hum of mosquitoes, the appalling crescendo of cricket frogs!—but the splash of the oars and the dark shape of the Native and the glow of his pipe were reassuring evidence of reality.

The marsh appealed to us because it was a center of life. We set forth on many a dewy summer morning to explore its quaggy fastness, never learning its secret, but from somewhere the idea took shape that the marsh was a receptive thing that recognized us and had a sense of humor. Sometimes when we terminated the adventure by floundering into some murky sink-hole, it seemed that all the gleeful imps of the marshland were laughing at us; and long after we became familiar with the alarm notes of rails, it was difficult to entirely dispel this notion.

We came to know the lowland intimately—its varying moods in sunshine or rain, the coming and going of its gawky habitues—the changes the seasons brought. We knew it in spring when the hyla chorus throbbed across the greening meadow and the colony of marsh marigolds splashed yellow in the very shadow of the woodland border; we knew it when winnowing ranks of wildfowl hurried southward against the rain-torn sky of autumn and the tall, bare plumes of the wild rice bent stiffly before the whistling “norther.” We heard with a thrill of elation the long “Quer-ree-e-e!” of Redwings, taking up territory in the battered, faded cat-tail sloughs of April; we watched the early bumble bees gathering pollen from the furry catkins of the pussy willow. And then we saw its meadows white with an airy sea of daisies, and delighted at the busy life that swarmed up at our approach, borne on the shining wings of coneheads and meadow grasshoppers; we saw where the showy lady slipper grew in its cloister of meadow rue. Then all at once it was September and gentians dotted the fen with the rarest and finest of all flower blues.

We learned that the cat-tails were the best place to look for nests. There the Redwings and Yellowheads hung their cradles, the Long-billed Marsh Wren wove his globular hut, and the Bitterns fashioned their sturdy platforms. There in one great day, we had stumbled upon the floating nests of Coots and Gallinules and Black Terns, all with full clutches of eggs. So the summers passed, and the marsh left an indelible impression in our makeup, shaping the direction of our bent.

But as we grew, there were long intervals of absence when the hazy blue line of a distant woods called more strongly. We no longer regarded it with the same intensity of puzzled interest; here was something we had conquered. But it soon became evident that the old slough as a problem had grown too, matching our broader knowledge with new mysteries that dwarfed the old ones we had mastered. And suddenly one day it came to us that the marsh *was* alive—passively so, it is true—but in a quiet sort of way it was accomplishing a great many things.

Beyond the marsh lay the quiet, picturesque lily pond, partially isolated from the rest of the lake, where in summers past we used to watch the warring bass as he threaded the maze of milfoil and bladderwort. Year after year, filling outward into this open, the marsh advanced, led by a broad front of bullrushes of the *Scirpus* sort—a floating bog that must eventually possess the entire lagoon. And ever on

the heels of this the cat-tails crowded, reaching out for the territory grown too shallow for the pioneer plant society; and landward still farther came the broad sedgeland, and beyond the fen-meadow, someday to be prairie, rolled to the borders of the woodland. Here was life and movement and a long, grim struggle to exist. Forever the front line advanced lakeward and the storm-winds beat it back, but year by year it was still accomplishing the work begun when the very uplands marked the margins of the original glacial lake.

But almost more intriguing than this, we discovered how interwoven with this plant world was the life of the birds. Choosing by preference and long habit the particular plant-zone most suited to their nesting needs, we found each bird almost unerringly in the same place season after season. Quite as surely as the majority of truly aquatic species preferred the cat-tails, others were equally fond of neighboring associations.

Moving landward beyond the tall cat-tail and wild-rice society, one broke suddenly into the open sedgeland, and the change in life was quite as abrupt as the change in vegetation. True, a few Redwings and Wrens filtered in, but it was characterized by one bird whose exclusive domain it was—the Swamp Sparrow. We found its nest, cleverly concealed at the roots of a spreading clump of *Carex* atop a “bog,” well above the shallow water that remained in this area till late summer.

At length as the wooded islands neared, the ground became merely moist, and we found ourselves entering a broad meadow of blue-joint grass; and here again we found a new world into which the ethereal trill of the Swamp Sparrow scarcely penetrated.

The meadow was smooth and green and easy to walk in. Here and there red osiers or glaucous willows broke its level monotone, suggesting possible nesting places of stray Redwings or Dickcissels or, in late summer, Goldfinches. Where the sweet flag crowded along the half-choked brook, Short-billed Marsh Wrens reiterated their rasping trills in chorus; and ever and anon the curt, clock-like “zit-er-reet!” of the Henslow’s Sparrow melted into the low hum of the meadow’s symphony. But the grassland expressed itself best through the boisterous Bobolinks who spattered its every inch with the clear, jangling tunes so unlike anything else in the marsh. Tirelessly on fluttering wings, they climbed the cloudless blue, circling and weaving, crystallizing the air into melody.

Sometimes on hot, bright, still afternoons when the Marsh Hawk wheels high in the sky, it is pleasant to drowse in the woodland border and study the green blaze of the marsh, seeking to fathom all the secrets it yet guards. There is life, death, joy, sadness in the eternal ebb and flow of things. What drama goes on now behind that green wall of verdure?

Symbol of the wilderness that was! Some people in one careless glance can know a marsh—a wasteland of mosquitoes and treacherous “sink-holes” and fever—and never thereafter regard it with a ray of real interest. Yet it filled its quiet place in the scheme of things—spongelike, absorbing and filtering the flood waters down through the

peaty remains of the ancient marshes below into the bed rock. Year after year now our artesian wells must sink deeper to draw from this ebbing supply that is no longer sufficiently renewed.

But, where it still remains, the marsh remains wild, its creatures adhering to its borders with the faithfulness of long habit. It is a friendly marsh that readily gives up its secrets to those who wish to know; and to those who know, a marsh can be a wonder world.



Photograph by A. M. Bailey.

The King Rail, a Marsh-nesting Species.

Population Studies in Chicago Birds

BY RUDYERD BOULTON

Modern studies in conservation, game protective measures and the like have emphasized the need of accurate data on the numbers of individuals of birds and animals that can efficiently occupy a given area. It has become more and more apparent that no community possesses adequate information,—and Chicago is no exception. The changes that have been wrought in our region through urbanization and modern development have had, as every one knows, a profound influence on animal life. What influence will the developments that are now underway have in the future?

Efforts are being made to determine what conditions are now, so that these data may be used for planning of the future. In other words, how many pairs of Bobolinks can be supported on a twenty acre pasture? What effect do these Bobolinks have, both economically and biologically on that pasture and vice versa? What factors influence the Bobolink population? Some of them might be cover (vegetation, height and density of grass, etc.), ecological environment (proximity to streams, woodland or cultivated land, etc.), man's influence (time of haying, amount of grazing, etc.), climatic environment (exposure, drought, wind, etc.). Each of our common species of birds can and should be studied in this way.

Chicagoland is particularly fortunate in having near it a relatively large amount of marshland and sloughs. Much of this has, of course, been drained and destroyed but much remains and few large cities in the north have ready access to such a large and varied marsh and water bird population. Because of the concentration of this type of environment much fascinating work can be done to determine the inter-relationships of these birds with each other and with the more or less accessible and uniform conditions under which they live.

A much needed and basic foundation on which to build is a survey of the Chicago area of the different types of environment that exist and their special relationship to each other. This might eventually be expressed in the form of a map and could serve both as an index where different associations of plants and animals could be found as well as the basis for detailed studies on their inter-related life histories.

Such an undertaking as is outlined above is beyond the capabilities of any one individual, no matter how industrious or capable. It is only through planned and concerted cooperation of interested bird students in the Chicago Area that even a dent can be made in what is undoubtedly a vital problem. There are many persons who spend much time afield and keep records of their observations. If these observations could be made according to some preconceived plan and gathered together in one place, they would be greatly enhanced in value and would form the basis for a sound study in populations and ecology of of Chicago Area birds.

The first problem is to use to the best possible advantage the records and observations that are already being made. The next problem is to undertake new techniques of observation, as opportunity affords, in order to fill in the gaps. It is to be hoped that both of these possibilities may eventually be put into operation. I believe that it is essential to present a more or less united front to a problem of such magnitude. The interest of such societies and organizations as the Chicago Ornithological Society, The Illinois Audubon Society, the Kennicott Club, and the Chicago Academy of Sciences, would be almost imperative.

One of the great advantages of this undertaking is that, even though it could not be completed for years, the very beginnings would immediately become useful.

FIELD MUSEUM OF NATURAL HISTORY, Chicago.

Reminiscences of Early Experiences in the Chicago Area

BY BENJ. T. GAULT

Peace had come to a badly torn and disturbed nation when my parents moved from Decatur, Illinois, the writer's birthplace, to Manchester, New Hampshire, where we lived for about a year before coming to the then young city of Chicago. Had they gone to Logansport, Indiana, as they thought quite seriously of doing, the writer's career might have been materially altered. We lived in rented homes at first, but soon after the Chicago Fire of 1871—witnessed on the two occasions by myself from a safe distance—moved to a permanent home on Washington Boulevard, then Washington Street. We came to Glen Ellyn in the fall of 1890.

At that time Glen Ellyn bore the name of Prospect Park but prior to our coming the name was Danby. In the fall of 1867 we moved to Chicago from New Hampshire shortly following the assassination of President Lincoln, whom my father knew personally at Springfield in this state before he was elected to the presidency. I recall the wretched sanitary conditions existing at that time. Everything was wet and soggy, cholera was raging, and Chicago citizens were passing away at an alarming rate.

Recollections of my earliest years in Chicago, when we were living in a rented building on Wilson Street in the southwestern section of the city, are associated in my mind with the heavy flight of Wild Pigeons that took place at that time. It must have resembled in many respects similar scenes that took place during Audubon's day, for it reached from horizon to horizon in continuous flocks for practically one entire day. I sat on a moist packing box observing this great sight, barring meal times, during all the while it was going on. In the years following we had smaller flights off and on during the 70's and in the early 80's when they dropped off altogether, which was not surprising the way they were slaughtered for commercial purposes. The last specimen the writer saw was a bird-of-the-year in the early fall (See Chapman's Handbook for exact date) of 1893.

The Ruffed Grouse is another bird that apparently has disappeared from these parts and it is questionable whether there are many of these noble game birds left in our state. Once they were fairly common here in DuPage County.



Riverview Park, then known as the North Woods, on the north branch of the Chicago River, in former days harbored many birds then migrating. At that time it was a heavy forested area, but scarcely any trees are now there and those that are I believe must have been planted. What is now known as Jackson Park, before being landscaped the year or two preceding the World's Fair of 1893, was another good locality in which to find birds and also the groves of woodland skirting the Des Plaines River. A few birds even nested at one time near Halfday and Wheeling and, I am told, north of Waukegan.

The Golden Plover is another bird I would like to mention. During the earlier years when we lived on Washington Boulevard it visited the closely grazed fields near what is now Humboldt Park both in spring and fall. Another favorite locality was in the vicinity of Lemont and Romeo on the Des Plaines River. But few of these birds were seen near Glen Ellyn when we moved there.

Although I learned considerable about the Prairie Chicken after coming to Glen Ellyn, my first experience with it was in Chicago. I accidentally stumbled on a nest in that portion of Garfield Park, then Central Park, south of Madison Street, a section left wild and unchanged. The nest contained fifteen eggs and I remember it as well as though it happened yesterday. A few of those eggs were taken and preserved but end-blown as was done in those days. The remainder were hatched and the chicks survived. "Chickens" then were fairly common on the virgin prairie lands all the way to the Des Plaines River and beyond toward Lombard and Prospect Park (now Glen Ellyn). At California Avenue (not then laid out) farm lands began. There was a corn field at California Avenue and for years afterwards cabbage fields were in evidence on Madison Street.

Those yet uncultivated prairie lands were rich with the original prairie flora and a fine sight to see in spring, summer and fall months. Upland Plovers or Bartramian Sandpipers bred there, delighting the ears with their whistling notes that should be heard to be appreciated. Even to this day scattered pairs are to be met with on the outskirts of Glen Ellyn, two pairs actually nesting and rearing young within the corporate limits of the village. Concerning the Calumet region, and especially Lake Calumet, I like to speak of the immense flight of Canvas-back Ducks once found there. The region was so famous that sportsmen from European countries came there to hunt them. At Sheffield, Indiana, just across the state line, a hotel was built especially for hunters. At one time I hunted on Calumet Lake myself. One trip is remembered well. My boyhood friend, John F. McNab (with whom I usually spend a part of the summer at a cottage we built at Bear Lake in Kalkasha County, Michigan), and I were at Calumet Lake one season when an immense flight of Canvas-backs took place. When the ducks arose from the center of the lake, keeping well out of gun range, the sound of their wings was like a heavy roll of thunder. Heavy gun fire could not have been louder. I have never heard anything like it before or since. It was a sight I never expect to see again.

On Calumet Lake there were also rafts of Coots which were never hunted or eaten in those days. They bunched together and could sel-

dom be induced to fly and then only in short runs along the surface of the water. They certainly were fool birds and were a great nuisance to the hunters. It would have been a crime, I believe, to have shot them. It would have been the same in the case of the Mourning Dove. Now both of these birds in the eyes of so-called sportsmen are looked upon as legitimate game. Certainly some changes have come from what they were in those by-gone days.

We now hear a great deal about the Crow as being "Public Enemy No. 1" which I believe is a too hasty conclusion. Why not take into consideration his good points as well for he is not altogether bad. Of that I have some evidences and my opinion is that if we do not give him a fairer "break", crop diseases, especially those injuring corn, will be more prevalent in the future than they have been in the past. Cut worms will be more abundant and so will grasshopper scourges. The entomologists tell us that one of the latter is to be expected the present year, by the way. The underdeveloped hoppers or "nymphs" would make excellent food for the Crow and, in my opinion, would be much relished by him. No, the encouragement of "Crow Shoots", and dynamiting them at their winter roosts, is all wrong as it has been practiced in our state and by the Conservation Department. It is wrong, I think, for the harm it does psychologically to our growing youth by encouraging a murderous instinct.

Glen Ellyn.

Winter Birds of Park Ridge

BY DONALD DUNCAN

Winter birds hold a fascination which is somehow lacking in our more fair-weather bird friends and it is always with great pleasure that we look forward to a trip into the country through the woods or over the wintry fields in search of hardy winter visitants. So with each succeeding winter's series of hikes, a few new species, growing always fewer, are recorded as belonging to that group of birds which can find enough food during the short winter days to carry them through the long cold nights.

A "winter" bird is a rather indefinite and a too elastic term to be closely defined but, in general, any bird remaining after the 20th of December or seen before the 10th of February in the Chicago area may be considered a winter visitant or resident. There are, of course, occasional exceptions when a bird seen shortly after the 20th or before the 10th are just exceptionally late or early migrants or wanderers and conversely, a few birds not seen during the period may really be winter visitants. However, for the sake of convenience, these limits may be arbitrarily selected, at least in a discussion of this kind.

Along the Desplaines River near Devon Avenue and over nearby country, fifty species have been found during the last five winters and

thus far this winter. Some of the records included were made by Frank Wadsworth and Aulden Coble to whom the writer is indebted.

Golden-eyes have been not uncommon though if the river were larger, they would probably be more numerous. Each winter sees a small group appear and remain more or less consistently in the vicinity wherever open water affords them place to rest and feed. A Mallard has been recorded once within the designated period and that was late in December. Usually the earliest migrants appear about the 15th of February and if the river remains open Mallards may remain until the first few days of December in the late fall.

The winter of 1935-36 was a fine one for hawks, probably because of the unusual number of mice which were to be found in all the fields. Red-tailed, Rough-legged, Red-shouldered, Marsh and Sparrow Hawks were all found. Each had previously been seen during winter but never before all in one winter. A single Cooper's Hawk remained through January in 1935. Pheasants are common throughout each winter but Hungarian Partridges have been recorded only twice during the colder months, in January, 1933, and late December, 1935.

Invariably Herring Gulls are found in numbers on the ice of the bays. Screech Owls are recorded almost every winter but the thin scattering of records for other species are insufficient to indicate whether or not they are winter birds. The Barred, Long-eared and Saw-whet Owls, however, have all been found within the winter period as previously defined.

The presence of Kingfishers is more or less directly dependent upon open water though in some winters open water does not keep them here. During three of the six years, however, one has remained along the Desplaines River near Devon.

Often on winter hikes one finds small groups of birds of various species together and such a group is to be found at some time during each winter. Groups such as these often include two or three or more of the following species: Hairy Woodpecker, Downy Woodpecker, Chickadee, Tufted Titmouse, White-breasted Nuthatch, Red-breasted Nuthatch, Brown Creeper, and Golden-crowned Kinglet.

Yellow-bellied Sapsuckers and Flickers occur rather irregularly during the winter months, the latter appearing to be slightly the more common of the two.

Horned Larks are present each year and cannot be considered anything but a regular winter bird. Subspecific determination is often difficult in the field and it is likely that at least two and perhaps three subspecies may occur here. It appears, however, in so far as we have been able to determine, that the majority of the birds are the Prairie Horned Lark.

The noisy Blue Jays and Crows are two birds which we can count on finding on every hike almost without exception, although occasionally Blue Jays are missing.

This winter the Carolina Wren has been seen in our area for the first time as a winter bird. The species has never been found to be common, however, and it may be almost as abundant during the winter as at other periods of the year.

Usually one or two Robins remain in the vicinity throughout the year feeding on berries or fruit of some kind which has remained on the bush or tree.

Bohemian Waxwings occurred in numbers late in the winter of 1931-32 and flocks numbering up to thirty-five at times were seen from the middle of February through March to early April. Although not found in what has been defined as the winter period, the birds were reported in nearby suburbs at earlier dates and are, of course, definitely winter visitors.

Northern Shrikes are rather irregular visitants but a single individual has stayed in the Park Ridge area over two winters, 1933-34 and 1934-35. In November of 1932 another was seen but it apparently moved on before settling for the winter period.

Although during the winter of 1930-31 Starlings were of uncommon occurrence, they are now so numerous as to be pests, their squeeking unattractive voices heard on almost any day.

Meadowlarks, Redwings, Rusty Blackbirds and Cowbirds have all been found irregularly during the winter period. Meadowlarks have been present during three winters but the Cowbird has been seen only once. The others have been present two winters each, the Rusty Blackbirds staying near a patch of open water while the Redwings appear to be wanderers. Bronzed Grackles have never been seen in the winter period but have been recorded very nearly within it.

In recent years Cardinals have become very common throughout the year. The only Evening Grosbeak record which we have is for April but this bird, like the Bohemian Waxwing, is definitely a winter visitant.

Purple Finches and Goldfinches are present most winters but the Redpoll is an irregular and comparatively rare visitor having been recorded three times in three different winters. Peculiarly enough, Pine Siskins have never been recorded in the area. Juncos, Tree Sparrows, Swamp and Song Sparrows all have been found, the first two very abundantly and the latter two less commonly. Swamp Sparrows remained through one winter only, 1933-34, in the heavy cover of weeds along the river shore just above the dam, but Song Sparrows are quite regular. Lapland Longspurs and Snow Buntings both occur but the Longspurs seem to be much more abundant than the Buntings, which are uncommon.

To one not particularly interested in winter birds, fifty species over a period of six years, or about twenty-two species on an average all-day hike, seems a meagre number of birds to study when any hike during the migration season will provide one with many more than fifty species in one day. But the numbers and increased beauty of song and plumage of later migrants can hardly replace the intimate friendliness of the winter birds and no better period can be found for a real acquaintance with them.

5841 Nickerson Ave., Chicago.

A Study of the Eastern Song Sparrow

(*Melospiza melodia melodia*)

BY HENRY MOUSLEY

Possibly the commoner the bird, the less likely will its home life be recorded. At all events, I never contemplated doing anything in this line with regard to the present very common species until July of the present year (1936), when by chance I found a nest in the making and decided to learn something of the bird's home life.

The nest was placed on the ground under a mass of cow vetch (*Vicia cracca*) and dead stalks of other plants and contained its full complement of four eggs on July 13. The young appeared twelve days later, on the 25th. One was dead, however, when I visited the nest again two days later. Not being familiar with the behaviour of sparrows at the nest, I set up the camera—at some distance to begin with—in order to judge the temerity of the parents. It was well I did so, for even at that, it was some considerable time before either bird ventured near the nest, and then I think it was the male, judging from its apparent size and supposed darker markings. Of course in judging the sexes I had nothing really tangible to rely upon, since both are alike in plumage. The male is a trifle larger if anything, but relative size is hard to judge accurately in the field. Perhaps the best indication came later when the supposed male appeared to pounce down and follow up its mate apparently in an endeavor to drive her to the nest, she being by far the more timid of the two. Throughout this study, however, it will always remain an open question which of the two sexes was really the bolder. My "hideout" was under a small poplar tree 60 feet from the nest. On this visit of three hours' duration the young—which were three days old—were fed once every eleven minutes. The parents towards the close of the sitting had become quite reconciled to the camera, so I decided when I next visited the site two days later to set it up much closer to the nest and try to obtain some better and larger pictures of the parents. In this I was most fortunate. The parents fed the young during the three hours I was at the nest at the rate of once every eight minutes. The young were then five days old, with their eyes well open. One picture (Fig. 1) shows both parents at the nest at the same time, one in the act of cleaning it, with the little white fecal sac in its mouth, the other alongside of its mate and apparently merely looking on. The latter must have appeared just as I pulled the release, as I was not aware of its presence, and in consequence the bird is somewhat blurred. This occasion and one other (of which I was unable to secure a picture) were the only times in which the parents were seen at the nest together. After the feeding of the young the male often sang in a somewhat low key at short intervals, not in the least resembling the full song of early spring and summer. The rather long tail of the Song Sparrow seems quite a knotty problem to its owner, for even in flight the bird keeps bobbing it up



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.

and down, and often at the nest it seems more or less in the way. Sometimes it is held at a right angle to the body as the bird stands on the edge of the nest (Fig. 2).

Two days later, on the 31st, I again visited the nest and remained for three hours during which period the young, now seven days old, were fed once every five minutes. The nest was kept scrupulously clean (Fig. 3), the parents sometimes eating the fecal sacs, sometimes carrying them away. Up to this time the young had evinced no sign of fear at my presence. On my next visit three days later, August 3, when they were ten days old, I was more than fortunate in finding them asleep and in securing a picture just as they woke up (Fig. 4), for at the first visit of one of the parents they all left at once and made off into the grass. With difficulty I managed to find one and secure its picture by placing it in the nest again, where it remained only for a moment before again making off. All three young were nicely feathered, there being no natal down on their heads (as is so often the case in other young birds at this age), whilst the only feather sheaths that had apparently not fully split open were a few covering the base of the primary feathers.

As already mentioned, the nest was in a very clean condition. Its foundation was composed of 280 coarse grass stems from 2 to 15 inches in length, whilst the inside lining consisted of 500 finer grasses ranging in length from 2 to 10 inches. In addition, the very center of the nest contained 150 pieces of plant fibre 1 to 5 inches in length as fine as the very finest hair. Its dimensions were as follows: diameter—outside 5 inches, inside $2\frac{1}{2}$ inches; depth—outside 3 inches, inside $1\frac{1}{2}$ inches. Few people, I am sure, realize the amount of labor involved in the construction of a nest, and it is for this reason that I carefully counted the component parts of the above nest, having as a matter of fact paid some little attention to this matter for the past few years with regard to the nests of other species.

In summing up this short study we find: (1) that the incubation period occupied twelve days; (2) that the young left the nest ten days later, this period possibly being shortened a trifle by my appearance at the nest; (3) that both parents took part in the feeding of the young and cleaning of the nest, although I am fairly sure that the bulk of this work was undertaken by the female, if not that entirely of cleaning the nest; (4) that the average length of time of feeding the young for the three periods of three hours each was once in every eight minutes. The food throughout consisted for the most part of soft materials, such as grubs, worms and caterpillars.

4073 Tupper St., Montreal, Canada.

Outlook and Duties for 1937

A Message from the President

After the election of federal and state officials has been amicably disposed of, we may again concentrate on what should be the prime objectives and purposes of the Illinois Audubon Society and wildlife conservationists in general for the ensuing year, 1937. For the true bird-lover has long since passed the stage of confining his conservation interests and endeavors to birds alone.

The prime necessity of the I. A. S. at this time is the recruiting of new members. That is urgent and essential. Along with many other societies, ours has suffered a serious depletion in membership during the hard years of the depression. Our ranks have been thinned woefully. Therefore, let each present member consider himself or herself a committee of one to gain at least one new member this year. Let those members that have fallen away during the past strenuous years, and who may see these lines, consider this a cordial invitation to renew their membership in the society, ignoring any past dues. Let us all pull together in this.

A still more valuable accomplishment of our members, especially those outside of Chicago, would be the starting of local Audubon or wildlife conservation societies. We should have a larger and more efficient membership in the central, western and southern parts of our state than we have or ever have had. Our representative in the west-central part of the state is Mr. T. E. Musselman of Quincy, a well known ornithologist, conservationist, and lecturer.

Then, what has been said in former years in this connection, needs to be repeated: viz., enlarge your sphere of influence and activity by taking up the cudgels for wildlife protection in your local paper, by giving talks before school classes, boy and girl scouts, men's and women's clubs of all kinds, such as garden clubs, Kiwanis, Rotarians, Lions and others. Many such small efforts and results must ultimately lead to complete victory for the cause so dear to our hearts.

One annoying feature of the situation at present is the fact that wildlife is now frequently harmed or destroyed by its friends, or by people having no ulterior designs at all. The efforts of the C. C. C. boys and the W. P. A. workers have often unintentionally resulted in damage to plants and animals where only good was intended. By advising the officials in charge or their regional directors about such occurrences, a change for the better may usually be brought about, because the men at the head are nearly all conservation-minded. Or, write to the headquarters of the Society, Academy of Sciences, Lincoln Park, Chicago, being sure to specify exactly where the locality in question is.

Even well-intentioned, supposed public improvements now turn out to be devastatingly destructive to wildlife: namely, the work of the many local mosquito-abatement setups. These good people develop an amazing activity which they deem purely beneficial to everybody. And

so they blithely drain or oil sloughs, ponds or swamps one after another. In nearly every instance a lovely little oasis of aquatic wild life, which has been treasured and often visited by observers of the outdoors, is destroyed. Has this ever-increasing part of our citizenship no rights at all? In many cases such "improvements" are utterly unnecessary because there are either not enough people living in the neighborhood to make such drastic measures desirable, or the end wished for could have been attained by the simple expedient of placing minnows into such water bodies. Why waste so much money and effort? Why ruin all such idyllic little spots? When our members hear of such proposals let them get busy to contact the men in charge and try to talk it out of them. If unsuccessful, let them rouse and organize public sentiment against the proposal in the press, through meetings, etc.

Let us all be up and doing in 1937.

Our Board of Directors

The personnel of our board of directors again has undergone considerable changes due to death or removal from the state. The transfer of Mr. Alfred M. Bailey from the Chicago Academy of Sciences to the directorship of the Colorado Museum of Natural History, Denver, has left a wide gap in the board, as also the death of Mrs. E. T. Baroody. Mr. Benjamin T. Gault, the sage of Glen Ellyn, has been forced by bodily ailments to absent himself from our meetings. These vacancies have been filled by the election of Dr. Howard K. Gloyd, the new Director of the Academy, a well-known herpetologist, ornithologist and all round biologist, Mrs. Margaret M. Nice, the outstanding ornithologist, Mr. Earl Wright, ornithologist and artist, also of the Academy, and Mr. E. T. Baroody, who has been a leading figure in outdoor societies of Chicago for some time. Mr. Donald Culross Peattie, who writes the "Breath of the Outdoors" for the Chicago Daily News, had been elected some time previously. With so much new blood of such type on the board of directors the Illinois Audubon Society should be able to accomplish something worth-while.

The undersigned urged the veteran ornithologist on the board, Mr. Benjamin T. Gault, to write some of his reminiscences as a bird observer in these parts, which, after much persuasion, he consented to do. The result is in the present number of the Bulletin (p. 19) and is a remarkable human document. It makes one realize once more, and from a somewhat different angle than usual, how much conditions have changed in our country within the short space of a human life.

C. W. G. EIFRIG, President.

First Record of Common Terns Nesting in Illinois

For the last several years Common Terns have been seen about Waukegan in July, but apparently no one reported a nest.

In 1935 I visited the pond in the Public Service Grounds beside Lake Michigan with the Yard Superintendent, Mr. Arthur Heim. As we approached the lake shore a Common Tern suddenly scolded, then another. We searched the shore and nearby vicinity but found no nest. At one time six terns were scolding. Mr. Heim told me that they had nested there some time before. Since he described the nest as being hardly a nest at all, just a hollow in the sand, and mentioned that the down on the heads of the young birds is of different shades of color, some yellowish and some brown, I was convinced that he was right.

As soon as I was home from the 1936 banding trip I went to the pond. Before I reached the shore a Common Tern was scolding. It was soon joined by others until there were twenty-five in the air, all scolding. I stood still and soon saw a bird with a fish and watched it with my binoculars until the fish was fed to a young bird. Upon going to the spot I had a good look at the first young Common Tern on record in Illinois. Then I saw another, and a nest with eggs. There was a bunch of feathers where one recently had been killed and eaten. Cat



Photographs by W. I. Lyon.

Eggs and Young of Common Tern at Waukegan, Illinois, July 19, 1936.

tracks led from the spot to a rock pile. I rushed home for bands, the camera, and also a gun. On the way back I got Mr. Heim and some others to come and help. We soon found our birds and I photographed and then banded them. We found four nests with eggs, one nest had three. About that time we heard the gun. The boys claimed they had shot an animal in the rock pile.

When I went back two weeks later the terns had gone. The three eggs in the nest mentioned above had not hatched so I took them for the collection of the Chicago Academy of Sciences.

WILLIAM I. LYON, Waukegan.

Notes From the Barrington Bird Club

An unusual opportunity for studying water birds delighted bird students this past fall. On the eastern edge of Barrington is a tract of many acres formed through the past three years by waters filling a burned out peat bed. Swampy margins and small islands covered with willows make the place attractive to birds all summer but migrating water birds were most abundant. Some shooting was done during the duck season by the owner but the locality was posted against public hunting.

An artificial lake southwest of town has been made a bird preserve by the owner. Large numbers of Blue and Snow Geese stopped here from late October until mid-November. There were also about three hundred Canada Geese and innumerable ducks of at least eleven species. We hope a more extended report on this refuge may be made next year. The owner has planted the lake with wild rice and other appropriate food and also feeds much corn. No shooting is allowed and the grounds are well guarded.

At both of these lakes the birds can easily be seen from the highway. Florida Gallinules were observed in numbers at the latter lake. In August four herons were in sight at the same time, two American Egrets, a Green Heron, Night Heron, and a Great Blue Heron.

MRS. CLIFFORD STOUT,

MRS. ROBERT WORK, Barrington.

A Day in January

Bright sunshine, blue skies, white snow, delicious pure air and peace and quiet over Morton's Arboretum. What a relaxation from a busy world of care to get out into such an atmosphere to enjoy winter in all its glory! Has there ever been a winter when the alders, parent seeds of which came from the Black Forest of Germany, have been so beautiful? With their lovely purple catkins of four to six in a group hanging in such abundance, and the black cones full of seeds of last summer's harvest on the trees, giving the whole group a purple cast in the bright sunlight, they were a sight to remember long after.

In this tranquil haven you might ask if there were birds to add to our delight and we answer, Oh, yes!—the Cardinal and his mate and Juncos met us at the gate. Among others were Downy and Hairy Woodpeckers, a Mourning Dove, Blue Jays, Crows, Marsh Hawk, Sharp-shinned Hawk, two female pheasants, and hark!—yes, it is a Goldfinch! A lovely Purple Finch appeared with two females, Chickadees, one sending his phoebe call ringing through the woods, Golden-crowned Kinglets, Starlings, and last but not least, a flock of twelve Pine Siskins eating seeds up in the alders. What a dear little group they made, some right side up, others up side down, hanging by their feet, giving us a splendid opportunity to study their colors of brown and yellow, and not at all fearful of us.

AMY G. BALDWIN,

6335 Kimbark Avenue, Chicago.

Bird Seed

To a friend and neighbor, who is fond of birds, but at a distance.

Since you refuse the invitation
To view my feathery delegation
That wings abroad each blessed day
To splash your ropes and wash poles gray,
A picture of this bugaboo
Instead I'll draw and send to you,
So when again our friends come round
You'll know them by their good back-
ground.

Note well the mansion in yon tree
Looms high so all may plainly see
That food and shelter here abide
For all that would be satisfied;

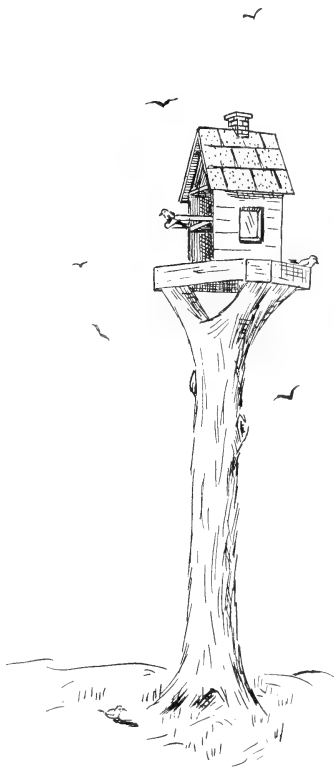
The heedless ones that too long tarried
In northern climes and now are harried
By sleet and storm that blind their eyes
As on they wing toward sunny skies;
The lofty ones, in brilliant glow,
The meek and lowly, twins of woe,
The migrant, off to downy bed,
The scorned, no where to lay his head;
All these are welcome in this fold
If they be hungry, worn or cold.

You ask, "What is the chimney for,
From which one sees no vapor pour?"
To some 'tis but an ornament,
But me, it soothes to some extent.
For when I see that chimney mast
Outstanding mid grim Winter's blast,
Like some kind, friendly, beckoning
hand

Above the snow clad roof and land;
Or when through frosted window pane
I try to peer, but all in vain
Till in a spot my breath made bare
I see, besides that beacon there,
A flock of birds—a score or more,
All feeding at the open door
Beneath that chimney's flueless bore
Thru' which no smoke but blessings pour!

'Tis then I feel some mystic Power
Stands likewise watchful for that hour
When the wants of man or beast or bird
Above earth's tumult shall be heard.

G. W. RISLEY, Park Ridge, Ill.



Bird Conservation in Adams County

One of the most effective movements in conservation has been the organization of a series of big areas in Adams County, Illinois, which are posted against all hunting, and where a definite program which will increase the number of Quail is being carried on by the farmers.

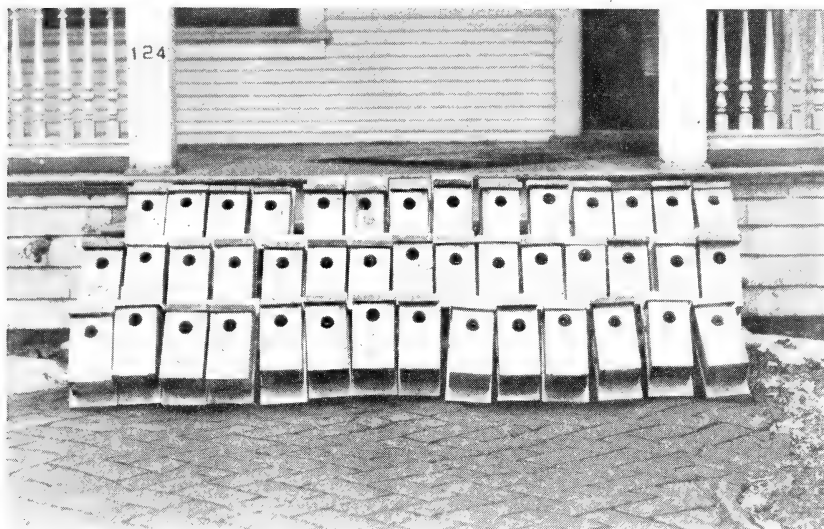
The past summer a group of eight or ten of the most prominent members of the Adams County Farm Bureau met in the yard of T. E. Musselman. Mr. J. T. Alison assured a continuous succession of farms totaling more than 2,000 acres. The northeast portion of the county organized with a total area of 5,000 acres and two small areas ranging from 1,500 to 2,400 acres are now closed to all hunting and are being scientifically prepared for the care of Quail. Mr. Musselman has given several of the units a lecture on the "Life Habits of Quail," and showed the farmers how to construct definite types of winter shelters and feeding locations.

A study is now being made on a program of planting that will furnish Quail with food twelve months of the year. The farmers are studying their land, and will plant hazel brush and blackberry briars along their creeks and washes on their farms with the dual purpose of supplying cover and stopping erosion. If the proper authority can be secured, the farmers hope to establish a Quail rearing center on each of the four units in which they will have a number of Quail from which they will secure their egg supply which will be transferred to bantam hens for incubation and rearing. The young birds will be released when they are old enough to join the native wild coveys. Water supply is to be studied and deep ponds will be dug on many of the farms with a planting of trees on the south banks.

The definite plan under which these farmers are carrying on this conservation program can be secured by writing to T. E. Musselman, Quincy, Illinois, and inclosing a three-cent stamp to cover the cost of mailing.

In a letter to the Editors, Mr. Musselman writes:

"It may interest you to know that at the present time I have forty additional Bluebird boxes constructed and painted and ready for erection, and there are fifty more boxes which have been cut, ready to be fabricated. This will give me a total of two hundred and fifty boxes, covering over one hundred and twenty-five miles of country road, and should these have the ninety-five per cent of occupancy which has been my record for several years, with an average of eight young birds to a box, will make better than one thousand eight hundred young Bluebirds that will be hatched in Adams County, Illinois. We now boast the title of 'The Bluebird County of the United States,' and I really believe there are more young Bluebirds born in our county than in any other similar location in the country. Even at this season of the year it is possible to see small groups of birds on the wires along our country roads, a condition which shows the practicability of this small project in conservation.



Some of Mr. Musselman's Bluebird Boxes.

“Inclosed is a photo of forty-two Bluebird boxes just before they were put on the trailer to take out into the country for erecting on posts along the pasture lands. It is interesting to know that, if I have the same good fortune that I have had for the last five years, forty of these boxes will have Bluebird families in them.”

A Notable Goose-Swan Incursion

Every careful observer of the outdoors knows that no two years are alike, not only in the weather, but also regarding the occurrence or non-occurrence of plant and animal forms, notably of birds. Thus, while of late years we had unexpected visits from several of the southern herons, such as the large and small Egrets, this year, more especially the fall was marked by the coming through of unprecedentedly large flocks of geese. Not the rather common Canada Goose, but the rare Lesser Snow and Blue Geese. On October 18 several thousand Snow Geese passed over River Forest at 11:00 A. M., and again a thousand or more were seen at 5:30 in the evening. Other observers saw these and other flocks on the same day and before and after that date. Among the Snow Geese was always a fair sprinkling of the rare Blue Geese. Nor did they just pass over, but they remained on ponds and sloughs of the neighborhood for days and even weeks. The writer saw them at the large Orland Slough, twenty miles southwest of Chicago, and at the Eustace place near Barrington, about thirty miles northwest. At the latter locality a small flock of six Cackling Geese stayed for a while, probably the second recorded occurrence for Illinois.

The swans were, of course, not so plentiful. But what they lack in number they somewhat make up by their bulk. Already in spring fourteen had been seen at Lake Calumet and others elsewhere, and in fall they turned up again in the company of the geese. A fine pair could be seen for several weeks in the Orland Slough. When freezing weather came one tried evidently to make the other join in continuing their journey southward, but to no avail. It was plain that the one remaining behind was unable to fly. Finally, workmen of the Cook County Forest Preserve caught the bird and, under the direction of Captain Sauers it was taken to Brookfield Zoological Garden for safe keeping until spring.

C. W. G. EIFRIG, River Forest.

A Bird Bath

Most birds can find enough food during the summer but during a season of drought, like that of 1936, they crave water both for bathing and drinking. A bird bath on a pedestal is desirable for it affords protection from prowling cats. Such a spot surrounded by a formal garden is a charming scene all summer. An outlook from the dining room has seldom a dull moment from daylight to darkness.

Robins and their speckled-breasted offspring drink freely and spray the flowers with their bathing. Young English Sparrows often sit on the rim of the pool enjoying the copious sprinkling of the Robins. The Sparrows bathe too but they are stupid creatures peering down toward the water when the pool is partly empty.

Dainty Bluebirds, old and young, are less frequent visitors. A family of seven graced the garden occasionally.

Early one morning a Flicker and Red-headed Woodpecker arrived on opposite sides of the rim and drank eagerly. Their reflection in the water made a bright bit of color. The Flickers are constant visitors bringing their offspring with them. On July 26 when the thermometer registered 120 degrees on the sunny porch they were omnipresent with beaks ajar as they panted in the heat. Brown Thrashers were at first frightened by the gaping mouths. Soon they sensed that the Flickers were not anti-social and all fluttered and bathed harmoniously with Robins and Sparrows. This was the largest number of species registered at one time.

The Brown Thrashers drop to the ground on leaving the bath and run rapidly among the plants, preening their feathers as they depart.

Catbirds enjoy the water. Their very active tails are most conspicuous as they make their ablutions.

A devoted pair of Goldfinches announce their arrival with inquisitive notes and wave like flight. They perch on opposite sides of the fountain and drink daintily. The sunflowers near by are only in blossom but they often stop to investigate the source where Mother Nature is manufacturing delicious dainties.

Whole Blue Jay families arrive with a war whoop and usurp the spa. They drink and bathe lustily then fly to a slippery elm where they may have had their nursery this season.

In all the heat the Song Sparrow breaks into song and visits the pool for refreshment. His dainty attire and good behavior are in sharp contrast to the uncouth demeanor of his English relatives.

Starlings abound in the thicket across the street but rarely do they come to drink or bathe.

Cowbirds come quietly and assert the "peck right" over the other species. They pounce violently upon their smaller neighbors which may have devotedly raised their young.

Kingbirds arrive with tyrannical call. Their unique peck at the water is a drink. A sudden dash in the deepest part of the bath as they hover above it and a hasty retreat from the garden is their *modus operandi* of a bath whether old or young.

The Yellow-billed Cuckoo eyes the pool suspiciously from the perch on the hawthorn or peach tree but has not been observed imbibing.

During the fall migration a Redstart came accidentally upon the bird bath. It jumped eagerly into the deepest part of the pool and created a veritable water volcano. It simply revelled in it. It hopped upon the rim, and, loathe to leave it, repeated its vigorous ablutions. Again it prepared to leave and then hurriedly returned for a third bath. An observer conjectured that bathing facilities must have been lacking in Redstart's summer quarters.

It would be difficult to say whether the feathered or unfeathered bipeds got the more pleasure from the bath.

ESTHER A. CRAIGMILE, River Forest.

1936 Nature Diary

BY T. E. MUSSELMAN

JANUARY 1. Like New Year's resolutions, the weather forecasters began to augur mild weather, but these promises of springlike days will soon be broken. Thin coats on raccoons and squirrels, and small stores of acorns and hickory nuts hidden in the hollow trees, are too irregular to allow such prognostications. An extreme cold period is in the offing. It was mild enough today. Two Sparrow Hawks sat on telephone posts, then fluttered above fields with halted flight to drop on unsuspecting meadow mice. Two Grackles and half a dozen Rusty Blackbirds, whose croaking notes sounded like corroded metal, were braving the winter in the neighboring Scotch pines. Even scattered flocks of Doves and indiscrete Meadowlarks lived from fields of green winter wheat to the great stacks of discarded straw.

JANUARY 5. Titmice like the warm sun and are calling "Peto." Even the Downies feel the spell and are drumming love tattoos on the resonant limbs.

JANUARY 6. A flock of a hundred Doves and some remnants of the badly shot up Quail are wintering about a field of buckwheat. This was cut and raked in piles but never gathered. The birds are enjoying the great abundance of small grain. Chickadees are singing "pewee" as they hunt for dormant insects. It has started to snow.

JANUARY 7. Two Red-breasted Nuthatches are using my suet. One carries a band attached last year. After the snow I lifted my small carpet exposing bare ground and scattered sunflower seeds, chick grain and millet. Redbirds, Song Sparrows, Juncos, and English Sparrows enjoyed the feast.

JANUARY 8. Juncos are on the increase.

JANUARY 10. I captured two English Sparrows which I killed and dropped near a tree. A red fox squirrel found these, cleaned one and devoured it. The other he carried away and hid in the depths of a hollow tree.

JANUARY 11. Cardinals are singing their "what cheer" songs.

JANUARY 12. Today is warm. I put up thirteen more Bluebird boxes on the Liberty route. This makes a total of ninety-two boxes on a forty-two mile circuit. Found half a dozen bee trees. It is so warm the honey bees are flying and hungry workers flew to the neighboring maples where they drank sap—a fine laxative mixture that assures longer life for these little busy bodies. I saw three Bald Eagles and one Golden Eagle today. They stay near the breaking ice where dead fish are available. I saw two Northern Pileated Woodpeckers. They winter here in some abundance and occasionally stay to nest. Other irregular records were Flickers and the Purple Finch, while on and above the river were American Mergansers and Herring Gulls.

JANUARY 18. A flock of five thousand female Red-wing Blackbirds passed over silently, busy about the work of finding food. Great Horned Owls have full complements of eggs.

JANUARY 22. Eighteen degrees below zero—one of the coldest days in my memory. Fruit buds are gone. A Bluebird banded last spring was found dead at Morrows, Louisiana.

JANUARY 28 TO MARCH 7 includes my nature trip to the wilds of the Republic of Mexico.

MARCH 7. Home again. Cardinals, Titmice, and Robins are singing. A Harris Sparrow was taken at La Grange, Missouri, ten miles north of Quincy. It is irregular in occurrence.

MARCH 8. First Migrant Shrike silhouetted against the sky as he sat watching for mice from the top of a post. Bluebirds are numerous. All of my two hundred boxes have interested birds—several have even started carrying dead grass.

MARCH 9. The river is full of Mallards, Pintails, Scaups and Golden-eyes while above the Herring and Ring-billed Gulls are abundant.

MARCH 13. Bronzed Grackles are back in great flocks.

MARCH 14. Phoebes are investigating nesting sites under every bridge. Maple trees in full bloom.

MARCH 15. Fox Sparrows and Purple Finches are in full song. Great Blue Herons, Towhees, Kingfishers, and White-throats are new. Killdeer have been here a month and are now numerous. Last year's sumach seeds are falling. *Peziza coccinea* shows its brilliant scarlet among the last year's leaves. Red-tail Hawks are building.

MARCH 19. The first hepaticas are blooming, showing purple, pink, and white flowers which color the dull rocky floor of the woods.

MARCH 20. Robins are building while a Bluebird at Liberty has a completed nest and one egg. Shrikes have completed their nests in the osage hedge rows.

MARCH 22. The Shoveller Ducks arrived today. They are tipping in the road side gutters.

MARCH 23. Vesper Sparrows made their presence known with lovely little good-night songs while from the junipers the newly arrived "chippies" trilled their happiness. The stately old elms burst into blossom.

MARCH 24. I did not know Bewick's Wren was here, but I heard it singing down the alley as it hunted through the garages and sheds for nesting sites. Over in the meadow I heard a trill which ascended rapidly—the Field Sparrows are back.

MARCH 24. Late this afternoon the east was circled with a glorious rainbow. Below the snow trilliums are blooming while up above the sticky buds on the cottonwood are breaking.

MARCH 25. Bluebirds are building in practically every box.

MARCH 26. A solitary Purple Martin scout circled the neighborhood Martin boxes, spent the night and disappeared. Woodcocks are probing among the lowland willow leaves. They will nest soon.

MARCH 27. Cottonwood blossoms hang like great red pendants. In the muddy turf, the Jack Snipes are probing for angle worms. Blue-winged Teal have joined the Shovellers in the wayside ditches. Cowbirds augmented the flocks of Grackles today, while an increased num-

ber of Harris's Sparrows whisked about the lowland brush piles. Henslow's Sparrows dart in and out of the marsh grass while above the Baldpate Ducks have added to the variety of marsh life. My neighbors' Martin box is lined with tired newcomers.

MARCH 28. Today occurred another dust storm. Juncos and Creepers are still here.

MARCH 29. Many Bluebirds have eggs.

MARCH 30. Today was a big "flock" day for the sparrows. Fox, Vesper, Song Sparrows and Juncos are here in the largest flocks I have ever seen. This is due to days of north wind which banked the birds south of us. Today's south wind released them in waves.

MARCH 31. Canada Geese are nesting.

APRIL 1. Five Tree Swallows were flying close to the river's surface gleaning a meager fare from tiny insects. For several weeks these birds will be common migrants but few nest here. The Illinois River is their nesting area. Box elders are in bloom.

APRIL 4. Caught and banded a White-crowned Sparrow. I also heard the insect-like call of a Grasshopper Sparrow.

APRIL 5. Brown Creepers are still here. The 15 degree weather killed practically all of the Bluebird eggs. Four out of five of my boxes have full complements at present. At least four hundred eggs were killed by this irregular cold snap. I found three mother Bluebirds dead on the frozen eggs.

APRIL 6. Warmer today.

APRIL 7. Ash trees are in bloom. Ruby-crowned Kinglets are hunting aphids in my lilac bushes and they occasionally stop long enough to sing their bubbling song. I saw a stray Red-headed Woodpecker.

APRIL 9. Field Sparrows are trilling with joy at the warm spring sun. Juncos are still here. Catkins are hanging long and golden on the yellow birches.

APRIL 11. Today was a singing day. Carolina Wrens, Brown Thrashers (which were new), Ruby-crowned Kinglets, Robins, and Cardinals were all vieing with each other. Dutchman's breeches are in bloom, also upland cress and spring beauties. Cricket frogs are almost silent but hylas are all talking in the ponds. Winter Wrens and Pied-billed Grebes are common in brush pile and ponds respectively. Coots are abundant and are eating the green sprouting wheat near Goose Lake.

APRIL 12. Made the round of my Bluebird boxes and found one with young birds. Had to clean out the soiled nests and spoiled eggs in the others. Lark Sparrows are singing from the meadow. Clover moths are flying.

APRIL 13. Spicebush is blooming.

APRIL 14. Shepherds' purse is in bloom. Buckeye buds are bursting into leaf. Black snakes are out but are sluggish. Barn Swallows are investigating the barn rafters. The first Swifts are back from "somewhere."

APRIL 16. Doves and Robins were singing at four-fifteen A. M.

White-throated Sparrows are singing their "Peabody" song. Yellow-legs and Jack Snipe are both plentiful.

APRIL 17. Upland Plovers are back.

APRIL 18. Myrtle Warblers are flitting in tree tops while down in the swamps the Marsh Hawks are building.

APRIL 18. Crested Cormorants moved in last night. Today I saw a heavy concentration of Coots. Bellwort and yellow *Coridalis* have opened their yellow flowers to the *Papilio ajax* which are more interested in the budding pawpaws.

APRIL 20. The blooming wild plum bushes hide the wayward Hermit Thrush.

APRIL 21. Colias butterflies and red admirals are powdering themselves with the yellow pollen of the pear blossoms.

APRIL 22. Red trillium or wake-robin is at its best. Wood Thrushes are back. The last Juncos left during the night.

APRIL 24. Adder's tongue drops its lily-like head over the green spotted leaves. Young Screech Owls are out of eggs.

APRIL 25. Sapsuckers are girdling trees. First Pieris butterfly. Barberry and chickweed are blooming. The gaudy Rose-breasted Grosbeak is back, nervously clicking, then bursting into a roundelay of song.

APRIL 26. Banded forty-six mother Bluebirds which I lifted from the eggs. Indian tobacco is at its best. Anemonies are lovely but not abundant. Marsh Hawks are laying. I saw first Willow Trush.

APRIL 27. It hailed today. The air is heavy with the odor of the pear trees.

APRIL 28. Buckeyes are in full bloom. Bluebells are lovely. Warbling Vireos, Kingbirds, and Crested Flycatchers are back. The tree tops are full of singing Goldfinches.

APRIL 29. Nighthawks and Baltimore Orioles are both back. Snakes are everywhere along the roads and fields. Red and white oaks are in bloom while down below in last years leaves little gray morel mushrooms are bursting forth.

APRIL 30. Saw my first queen bumblebee today. Sassafras is in bloom; down below the sweet Williams make the hillsides blue. *Papilio asterias* flashes its black and orange wings about the many blooming flowers. March Hawks have finished laying. Yellow Warblers are in every willow tree.

MAY 1. It hailed. Many of the stones were two inches across. Saw first toad today.

MAY 2. Lots of morel mushrooms are up. I took a morning trip and saw 102 different varieties of birds. Among the new arrivals last night are: Little Green Heron, Spotted Sandpiper, Olive-backed Thrush, Gray-checked Thrush, Catbird, Redstart, Yellowthroat, Louisiana Water Thrush, Ovenbird, Palm Warbler, Black-throated Green Warbler, Black Poll Warbler, Prothonotary Warbler, White-eyed Vireo, Red-eyed Vireo, Scarlet Tanager, Least Flycatcher, Yellow-bellied Flycatcher, Sora Rail.

MAY 3. Abundant growth of morels; Field Sparrows are singing.

MAY 4. Carthage College just received an albino Double-crested Cormorant killed at Dallas City. Spotted cranesbill blooming in swamps while above, the hickories are covered with catkins, creeping cinquefoil is yellow. Literally millions of Goldfinches are singing in the tree tops, where they eat the elm seeds. First Indigo Bunting. Giant bullfrogs are bellowing. Elm seeds are falling upon the blooming blue star grass.

MAY 5. Chestnut-sided Warblers are back, while Bobolinks and Orchard Orioles are other later arrivals. Red-headed Woodpeckers are mating. Wild mustard, strawberries and wood sorrel add yellow, white and pink to the mosaic of color under foot. Willow trees have long yellow tassels swaying in the wind. The hillsides are heavy with sweet William while in the deeper woods Jacob's ladder is beautifully blue.

MAY 6. Walnuts and butternuts are in bloom. Fireflies are flashing and polyphemus moths are flying slowly over the tree tops. First young Robin is on the ground.

MAY 7. Wild cherries are in full bloom. Saw an acre of blooming cowslips today, also pink oxalis, and wild red phlox. Up above the yellow *Papilio turnis* fly high.

MAY 8. Nashville and Tennessee Warblers, Least Sandpipers, and Wood Pewees arrived.

MAY 9. A solitary Cerulean Warbler added its presence to the multitude of other wood warblers. Mosquitoes are very numerous.

MAY 10. A Titmouse has a nest made of mouse and squirrel hair. As I lifted the box lid she hissed like a snake, causing me to drop the lid. A Robin built a nest in a bush through which a hog-tight fence had been stretched. The cross wire was so close on the top of the completed nest that the mother could not sit on or in the nest but had laid two eggs which must have rolled into the nest from above. Cuckoos and Yellow-breasted Chats returned today. All the summer birds have now returned. The wild hyacinth is at its best.

MAY 11. White larkspur and white clover are new additions to the white flowers.

MAY 12. Black locusts are fragrant. Young Screech Owls are flying.

MAY 13. Penstemon and spiderwort are in full bloom.

MAY 16. Golden ragweeds, wild ginger and parsnips are in bloom. The wafer ash is showing inconspicuous flowers which will later be fine clusters of winged seeds. Great beds of red columbines attract multitudes of hummingbirds. Found two beds of pink water leaf, also numerous shafts of spikenard.

MAY 17. Bittersweet is in heavy bud. Honey bees are already busy over the tiny blossoms which have broken. Young Phoebe's are flying. Home-grown strawberries were on the market today.

MAY 18. Sweet cicely is at full bloom. Both polyphemus and luna moths are sailing haphazardly about. Yellow-wood trees are blooming.

MAY 19. Found a Marsh Hawk's nest with seven eggs nearly

ready to incubate. Ground ivy and dragon arum are blooming. White swamp cranesbill is lovely in the bottoms.

MAY 20. Nighthawks still booming. Goatsbeard blooming.

MAY 21. Daisy fleabane, yarrow, and yellow flowering sweet clover in fresh bloom.

MAY 23. Red clover in full bloom everywhere. Horned Larks are feeding young. Bedstraw, English plantain, and pecans are blooming.

MAY 24. Willow amsonia or dogbane is in bloom with silverspot butterflies feeding on the nectar. Carp are still spawning. Leopard frogs are everywhere in the grass. Swamp milkweed is dull white. False indigo is particularly heavy now. In the wheat fields, corn cockle shows an abundance of pink blossom. Giant bullfrogs are booming and the females are spawning. Upland the osage hedge is in bloom. Catalpas are lovely.

MAY 25. Cottonwood seeds are blowing. Native small dogwood is a lovely white in color and sweet in odor.

MAY 26. Poison ivy is blooming. Found a Prothonotary Warbler nesting in a can stuck in a willow tree. Puccoon and heart-shaped umbrella-wort are both coloring the sandy plots along the cliffs. *Papilio cresphontes* and luna moths are at their best. Cow parsnips are just opening.

MAY 28. First ox-eye daisies and wild iris blooming.

MAY 29. Cow lilies are in bloom in mud ponds, also snakeroot blooming in the sandy soil.

MAY 30. Heal-all mint and hairy ruellia blooming. Bell's Vireos have eggs, mother deserted because of presence of a Cowbird egg. Of the seven eggs in the Marsh Hawk nest, one little bird has emerged.

JUNE 2. Great flight of Mormon-flies. They hang a foot deep on the river side of posts. Meadow rue is lacy and white.

JUNE 3. Hollyhocks and yellow daisies are blooming. Baby Shrikes are now on the fence wires. Seeds of wild hyacinths are falling. Lilac trees are blooming—a gorgeous sight.

JUNE 4. First elderberries in bloom. Three little hawks and three eggs now remain in the Marsh Hawk's nest. One egg disappeared. The young are of different sizes being incubated on different days. The brown mother dipped and shrieked at my approach while higher up was the blue and white father which rattled his objections but did not come close.

JUNE 8. Moth mullein, black-eyed Susans, and the first Queen Ann's lace.

JUNE 9. Trumpet vines invite the humming birds. Wild strawberries juicy and ripe.

JUNE 10. Cone-flowers are lovely. Found a male Quail covering a set of ten eggs. The female was killed by a mower. Yellow cactus and golden aster are blooming. Bluegrass is dropping its ripe seed. Luna caterpillars are out. Bouncing bet is blooming everywhere.

JUNE 11. Mullein is yellow with blossom, also New Jersey tea and butterfly weed.

JUNE 12. Service berry in fruit while wahoo is blooming. Male sumach also is in heavy head.

JUNE 13. Plantain is in full seed. Day lilies opened today. Male mosquitoes are flying. Today was a Quail day. Many nests incubated.

JUNE 14. Black raspberries are ripe. The cutting of sweet clover has filled the air with a new and delicious odor. Ash leaves are taking a purple hue. Vervain is blue in isolated plants. Great milkweed clusters are beautiful pink. I set twenty Quail eggs under my bantam hen.

JUNE 15. Poke berries are beginning to blossom.

JUNE 16. First cicadas.

JUNE 17. Caught a *Sphinx modesta*.

JUNE 19. Caught two large-mouth black bass, four and three pounds. The female was loaded with eggs.

JUNE 20. Willow-flies are out.

JUNE 21. Banded eighty baby Bluebirds. Mothers are feeding them grasshoppers and crickets almost entirely. Found a new tree with little plum-shaped drupes—a wild olive, *Adelia acuminata*.

JUNE 22. Virginia day-flower is today's addition to the list of flowers.

JUNE 26. Many young Nighthawks down on the ground. Dobson-flies on wing.

JUNE 27. Catnip blooming.

JUNE 28. Young Kingbirds flying. Bergamot and horse nettle in bloom. Banded five young Cooper's Hawks about ready to fly. Camomile and volunteer buckwheat blooming.

JULY 4. Banded fifty more baby Bluebirds. One nest had four normal eggs with a tiny albino egg about half the size of its companions.

JULY 5. Digger wasps are out. There seems a definite relationship between the appearance of these wasps and the cicadas. First wild blackberries.

JULY 6. Sourwood is in bloom.

JULY 10. Young Red-headed Woodpeckers are out and flying.

JULY 11. Crickets chirping.

JULY 14. American Egrets are back.

JULY 15. Peppermint is in bloom.

JULY 16. Captured a miniature Black Rail half grown, the third I have banded about this age. It has red eyes with black pupils.

JULY 19. Ironweed is in bloom.

JULY 20. It is hot. Every thing is seared.

JULY 21. Blackbirds have started flocking.

JULY 25. Two Mockingbirds nested this year at Clayton.

JULY 26. Frogs have ceased singing although toads still sing and some are still laying eggs. Red horse minnows are active in the creek rapids.

JULY 28. I caught a *Specodina abbotii* around a rind of a honey dew melon.

AUGUST 1. Lots of partridge peas and iron weed. Goldenrod growing yellow.

AUGUST 2. Canada thistle in bloom. *Papilio ajax* are numerous, laying eggs on pawpaw. A leghorn cockerel swallowed two baby quails whole.

AUGUST 11. A beautiful immature albino Blue Jay is seen daily at Memphis, Missouri. This is the fourth such white jay in two years in this neighborhood.

AUGUST 12. Sunflowers are in full bloom.

AUGUST 18. Little white night shade and snakeroot are blooming.

AUGUST 19. Marsh mallows add pink to the lowlands.

AUGUST 20. Another flight of Morman-flies.

AUGUST 23. Little mint or blue curls, jimson weed, dodder, field bindweed, and primroses are blooming. Caspian, Least, Common, and Black Terns are on the river this week. There has been a small flight of vireos, and warblers, mostly Redstarts and Red-eyed Vireos.

AUGUST 26. Young Great Blue Herons have started south in a large V.

AUGUST 30. Hop flowering bindweed, cardinal flowers, and sneezewood are all heavy in flower. Semipalmated Plover, Pectoral and Spotted Sandpipers, Greater Yellowlegs, and Killdeer are all wading in the mud flats. Red-headed Woodpeckers are nervous, being ready to migrate. Swifts are gathering in great numbers. Young rabbits appear in numerous nests.

SEPTEMBER 5. Virginia day-flowers are in bloom, likewise green smartweed.

SEPTEMBER 8. Thousands of Nighthawks have gathered before migrating.

SEPTEMBER 9. Flowering spurge is lovely along the country roads. Mushrooms are plentiful.

SEPTEMBER 10. Orange jewelweed is lovely in the shaded swamps.

SEPTEMBER 11. I heard the whisper song of the House Wren also a late song of the Rose-breasted Grosbeak.

SEPTEMBER 12. Orioles are also singing softly.

SEPTEMBER 13. Box elder bugs are out, hunting a place to hibernate.

SEPTEMBER 18. First cobwebs floating. Thousands of Swifts came in on the north wind. Nighthawks and Wood Thrushes are still here.

SEPTEMBER 19. Many black widow spiders are being brought in.

SEPTEMBER 20. The fall shuffle of Quail occurred today. Michaelmas daisies are in bloom.

SEPTEMBER 24. Buckeye butterflies are flying.

SEPTEMBER 30. Big migration of White-throated Sparrows.

OCTOBER 1. Myrtle Warblers are everywhere.

OCTOBER 2. Fields are white with thoroughwort and snakeroot. Kinglets came in great numbers.

OCTOBER 3. Blazing stars fine. Tree Swallows line the telephone wires. Purple asters are abundant. Tree Sparrows are back.

OCTOBER 4. Saw a Sparrow Hawk catching grasshoppers, also a Sharp-shinned Hawk picking a small bird.

OCTOBER 5. Last of the Nighthawks. Fall violets are blooming.

OCTOBER 9. All White-throats are gone.

OCTOBER 12. The Swifts left today.

OCTOBER 13. Great flocks of Snow Geese flew over last night.

OCTOBER 16. Black haws are in full berry.

OCTOBER 17. Maple leaves are falling.

OCTOBER 18. An 18 pound polyporus mushroom was brought to me today. Lovely little magenta Gaillardia in bloom. Saw a late Field Sparrow.

OCTOBER 22. First killing frost. Big duck migration.

OCTOBER 25. Soft trees have lovely coloring, acorns sprouting.

OCTOBER 26. A Bald Eagle was killed feeding on a dead baby pig.

NOVEMBER 1. A Golden Eagle passed over several blinds.

NOVEMBER 3. Franklin Gulls invaded the country as usual at this season.

NOVEMBER 5. Catching wall-eyed pike at the Canton Dam. Golden-eyes and Snow Geese were killed today.

NOVEMBER 9. Saw a flock of several thousand female Red-wing Blackbirds.

NOVEMBER 10. A three and a half pound Medusa-head mushroom was brought to me.

NOVEMBER 11. Saw 18 Killdeer today.

NOVEMBER 13. A few Bluebirds and Killdeer are still here, also Flickers and a scattered group of Red-headed Woodpeckers.

NOVEMBER 16. It freezes each night now.

NOVEMBER 20. Thousands of ducks are still on the Illinois River as well as a few Cormorants and a Coot or two and one Great Blue Heron.

NOVEMBER 28. Examined a number of rabbits, no trace of tularemia this year.

DECEMBER 5. Snow, sleet and rain.

DECEMBER 12. Mild; travelled in the country to paint one hundred Bluebird boxes.

DECEMBER 15. Two more Eagles killed. It seems that the average man with a gun cannot resist the opportunity to knock down our national bird. The excuse is always the same, that eagles carry away babies, lambs and little pigs, and are dangerous. Why can't Congress protect what few of these great birds are left?

Quincy.

The Pokagon Conservation Club

Statues of two great Indians guard the entrance to Jackson Park. These sculptured masterpieces were erected in honor of Leopold and Simon Pokagon, famous Indian chiefs of the Pottawatomie tribe.

"The Pokagons, father and son, were successive chiefs and sachems of the once powerful Pottawatomie tribe, which long occupied the region around the southern and eastern shores of Lake Michigan. Leopold Pokagon is described as a man of excellent character and habits, a good warrior and hunter, and as being possessed of considerable business capacity. He was well known to the early white settlers in the region about Lake Michigan, and his people were noted as being the most advanced in civilization of any of the neighboring tribes. He ruled over his people for forty-three years.

"In 1833 he sold to the United States one million acres of land at three cents an acre, and on the land so conveyed has since been built the city of Chicago. He died in 1840 in Cass County, Michigan.

"His son, Simon, then ten years of age, became the rightful hereditary chief of the tribe. At the age of fourteen he began the study of English, which he successfully mastered, as well as Latin and Greek. No full-blooded Indian ever acquired a more thorough knowledge of the English language. In 1897 he wrote an article for a New York magazine on the 'Future of the Red Man,' in which he said: 'Often in the stillness of the night, when all nature seems asleep about me, there comes a gentle rapping at the door of my heart. I open it, and a voice inquires: 'Pokagon, what of your people? What will be their future?' My answer is: 'Mortal man has not the power to draw aside the veil of unborn time to tell the future of his race. That gift belongs to the Divine alone. But it is given to him to closely judge the future by the present and the past.'"

Simon Pokagon was also a lecturer, and one of the earliest conservationists to plead for the preservation of wild life. One cannot attribute his talent entirely to the persistence in the study of several languages, but inspirationally he was also a great philosopher and naturalist.

In his book "Queen of the Woods" are many beautiful descriptions of the red man's attitude toward primitive nature and the Great Spirit. He observed the birds and the accounts of his observations are as fine as the writings of Audubon or John Burroughs.

The Pokagon Conservation Club derives its name from Simon Pokagon, whose life was devoted to his race and in recording the history of America in the language of the Indian. It is in his honor that we carry on, and in the belief that this noble character has added greatly to enhance the legend of a race which truly symbolizes a natural conservation of nature.

HUGO ZEITER, Honorary Field Agent, Danville.

*From *Lives of Famous Indian Chiefs*. American Indian Historical Publishing Co., Aurora, Illinois.

Christmas Census of 1936

Blue Island, Cook County, Ill. (Vicinity of Blue Island and Orland Park, Ill., Oak Hill, Mount Greenwood and Palos Park banding stations.) December 20 to 25, ground bare, temperature 30° to 40°. Birds listed show largest number observed in one day. Sharp-shinned Hawk 1; Red-shouldered Hawk 1; Marsh Hawk 1; Sparrow Hawk 1; Herring Gull 6; Screech Owl 1; Red-headed Woodpecker 3; Hairy Woodpecker 8; White-breasted Nuthatch 26; Ruby-crowned Kinglet 1; Starling 25; Cardinal 21; Purple Finch 4; Goldfinch 2; Slate-colored Junco 50; Tree Sparrow 100; Total, 21 species. At Palos banding station two robins remained until the 13th of December. At the Oak Hill banding station two Bronzed Grackles and a banded Carolina Wren stayed around up into the second week of December.—Alfred H. Reuss Jr. and Karl E. Bartel.

Park Ridge, Cook County, Ill. (Along the Desplaines River between Lawrence Avenue and Oakton Street and over adjacent country.) Birds recorded on hikes taken on the 24th, 26th and 31st of December. American Goldeneye 4; American Merganser 30 (in flight); Sparrow Hawk 2; Pheasant 4; Herring Gull 26; Flicker 1; Hairy Woodpecker 6; Downy Woodpecker 3; Horned Lark 3; Blue Jay 5; Crow 19; Black-capped Chickadee 30; Tufted Titmouse 10; White-breasted Nuthatch 3; Brown Creeper 7; Carolina Wren 1; Golden-crowned Kinglet 11; Starling 110; English Sparrow 50; Cardinal 20; Purple Finch 3; Goldfinch 10; Slate-colored Junco 24; Tree Sparrow 150; Lapland Longspur 1 (heard); Total, 25 species. The Carolina Wren, our first record here in winter, has been in town for some time and has been observed upon more than one occasion.—Frank Wadsworth, Aulden Coble, Donald Duncan.

Lisle, DuPage County, Ill. Timber Trails Woods, Indian Head Woods, Morton Arboretum. December 31. 8 A. M. to 1 P. M. Sunny; Temp. 30°, southwest wind. Red-tailed Hawk 1; Marsh Hawk 1; Screech Owl 1; Flicker 1; Red-headed Woodpecker 3; Hairy Woodpecker 2; Downy Woodpecker 3; Horned Lark 1; Blue Jay 2; Eastern Crow 25; Black-capped Chickadee 53; White-breasted Nuthatch 2; Brown Creeper 1; Eastern Golden-crowned Kinglet 1; Starling 50; English Sparrow 100; Cardinal 1; Slate-colored Junco 25; Eastern Tree Sparrow 50; Total, 19 species. The presence of several Red-headed Woodpeckers on Timber Trails Golf Course is doubtless due to the size and abundance of acorns. Chickadees, Juncos and Tree Sparrows abound in Morton's Arboretum.—Esther A. Craigmile.

Lisle, DuPage County, Ill. (Morton Arboretum) Jan. 1; 10 A. M. to 4 P. M.; partly cloudy with moderate northeast wind; temperature 32° observer alone. Red-tailed Hawk 1; Ring-necked Pheasant 3; Belted Kingfisher 1; Red-headed Woodpecker 1; Hairy Woodpecker 2; Downy Woodpecker 4; Prairie Horned Lark 5; Blue Jay 2; Eastern Crow 12; Black-capped Chickadee 8; Tufted Titmouse 6; White-breasted Nuthatch 5; Brown Creeper 3; Golden-crowned Kinglet 2; Cardinal 4; Purple Finch 3; Northern Pine Siskin, flock of 20; Eastern Goldfinch 4; Slate-colored Junco 20; Tree Sparrow 15; Song Sparrow 1; Lapland Longspur, flock of 4. Total, 22 species. Also Carolina Wren on December 13. The absence of Juncos and Tree Sparrows in numbers is noteworthy, this no doubt being due to the mildness of recent weather.

The day's most exciting moment did not come with some ornithological rarity, but was provided by a red fox—my first encounter with this species. The region surrounding the arboretum is largely woodland spotted with small hilly pastures and fields around which the woods are more or less open. This I find in keeping with Mr. Gregory's statements as to habitat of this species in his Mammals of the Chicago Region. I had occasion to cross one of these small fields—deviating from the usual course of my walk through the arboretum to follow the Red-tailed Hawk which for some reason or other expressed itself today more vociferously than ever before. Its call seems like a prolonged hoarse cry of a Blue Jay. Perhaps a half hour later, after lingering about looking for the hawk, I retraced my footsteps through

the field to continue my walk where I had left off. Coming to the crest of the first of two hills in the field, I saw in the dip between the hills a red fox coming towards me. He immediately turned about and ran up the other hill, stopping just over the crest to turn his head and look at me for a moment, then running on. I had an excellent opportunity to watch him with my field glasses as he ran up the hill—a distance of about 100 feet—his bushy white-tipped tail streaming behind. In broad midwinter sunlight, he provided a beautiful sight, standing just beyond the hilltop surrounded by yellowed grass. I am not familiar with the habits of this mammal, but I later wondered if he might not have been following the scent of my footsteps across that field.—Frank A. Pitelka.

Port Byron, Rock Island County, Ill. (Fields and woods three miles southeast, and along the east bank of the Mississippi River.) Dec. 25 to Jan. 1. Weather cloudy and rainy, thundershowers Dec. 30; ground bare; temperatures far above normal. American Golden-eye; American Merganser; Rough-legged Hawk; Bob-white; Herring Gull; Screech Owl; Great Horned Owl; Red-bellied Woodpecker; Red-headed Woodpecker; Hairy Woodpecker; Downy Woodpecker; Prairie Horned Lark; Blue Jay; Crow; Chickadee; Tufted Titmouse; White-breasted Nuthatch; Brown Creeper; Starling; English Sparrow; Cardinal; Slate-colored Junco; Tree Sparrow; Song Sparrow. Total—24 species.—John J. Schafer.

Moline and Rock Island, Rock Island County, Ill. In and near city limits. December 21 through December 29. Eight hours afield. Temperature above normal from 35° to 60°. Ground bare of snow. All round numbers estimated. American Golden-eye 30; American Merganser 3; Cooper's Hawk 1; Bald Eagle 2; Marsh Hawk 1; Bob-white 6; Ring-necked Pheasant 3; Herring Gull 50; Ring-billed Gull 20; Screech Owl 1; Great Horned Owl 1; Barred Owl 1; Eastern Belted Kingfisher 1; Flicker 2; Red-bellied Woodpecker 20; Red-headed Woodpecker 3; Hairy Woodpecker 10; Downy Woodpecker 10; Prairie Horned Lark 10; Blue Jay 20; Eastern Crow 30; Black-capped Chickadee 40; Tufted Titmouse 40; White-breasted Nuthatch 8; Brown Creeper 13; Carolina Wren 1; Robin 2; Eastern Golden-crowned Kinglet 1; Eastern Ruby-Crowned Kinglet 1; (both observed and song heard); Cedar Waxing 10; Starling 10; English Sparrow 200; Eastern Redwing 1; Cardinal 30; Eastern Purple Finch 70; Common Redpoll 30; Eastern Goldfinch 10; Slate-colored Junco 100; Eastern Tree Sparrow 300; Song Sparrow 3; Lapland Longspur 1. Total, 41 species.—Elton Fawks.

Fiatt, Fulton County, Ill. (A composite list made on two trips within four miles of Fiatt on December 27 and January 3). Weather cloudy and above freezing, visibility poor. Eastern Mourning Dove 6; Screech Owl 1; Flicker 1; Red-bellied Woodpecker 3; Downy Woodpecker 12; Blue Jay 5; Eastern Crow 20; Black-capped Chickadee 80; Tufted Titmouse 8; White-breasted Nuthatch 5; English Sparrow 67; Cardinal 15; Eastern Purple Finch 7; Slate-colored Junco 47; Eastern Tree Sparrow 90; Song Sparrow 19. Total, 16 species. Field trips this fall indicate a scarcity of birds in this locality. Because of severe drouth, food and cover are reduced to a minimum and most areas are grazed to the grass roots. Almost all birds were observed in small weed patches along streams.—Harold Ault.

Joliet, Will County, Ill. (Pilcher Park Arboretum). December 24; 10:30 to 1 P. M. Temp. 45°; south wind; ground bare; partly cloudy. Seven miles by auto and four miles by foot. Red-shouldered Hawk 2; Marsh Hawk 1; Sparrow Hawk 1; Red-tailed Hawk 1; Crow 6; Blue Jay 1; Downy Woodpecker 1; Tree Sparrow 12; Slate-colored Junco 1; Starling 10. Total, 10 species.—Karl E. Bartel.

A Financial Statement

In order that the membership at large may know something about the use of the funds of the Society, the Board of Directors submits the following informal summary of receipts and disbursements, based upon the report of the Treasurer, for the fiscal year ending June 30, 1936:

Receipts	Per Cent of Total
Income from membership dues.....	41.75
Interest on endowment and other invested funds.....	42.75
Receipts from sales of leaflets, cards, books, etc., and contributions from interested friends.....	15.50

These proportions naturally vary in different years since the receipts from dues, forming a very appreciable portion of the total income, are by no means constant. For example, the income from this source during the past year was only about 30 per cent of the amount received from membership dues during the year of 1929-30. It is therefore quite in place to say here that more members are needed, and that those in arrears for dues during recently past years should be urged to reinstate their good standing so that the Society may extend its influence toward the accomplishment of the objectives for which it stands.

Disbursements	Per Cent of Total
Printing and postage.....	37.14
Purchase of books, leaflets, cards, etc. for resale.....	8.36
To the Chicago Academy of Sciences for office space, use of lecture hall and affiliated memberships*...	21.47
Lectures and clerical service.....	11.73
Contributions to the work of the National Association of Audubon Societies, Hawk Mountain Sanctuary, Jack Miner's Game Refuge, and other worthy causes	21.30

*Through the affiliation of the Audubon Society with the Academy of Sciences each member of the Society becomes an associate member of the Academy.

The International Committee for Bird Preservation

The following is an extract from a letter recently received by our Secretary, Miss Catherine A. Mitchell:

"I wish to draw your attention to the work of the International Committee for Bird Preservation. National Sections composed of official representatives of the leading ornithological and conservation societies in twenty-six countries* are organized to advance the cause of bird protection.

"Our work in Continental Europe is centralized in the Brussels office of the Secretariat, and in like manner the countries of the British Empire are connected with the London office. In New York, we are now working especially with the West Indies, Central America, and South America. Within the past few months we have learned that in most of the countries to the south of us almost no attention is paid to bird protection. Great numbers of our birds, including twenty-one species of ducks, many song birds, and virtually all of our more important shore birds, pass the winter south of us. We cannot hope to rebuild our North American bird supply without the aid of these southern neighbors which are doing no more for the protection of birds than was being done in the United States forty years ago.

"We desire to gather all possible information regarding bird-protective conditions in other countries. We would, therefore, be glad if you will draw to the attention of your membership this movement for saving the birds that know no national boundaries, and ask any who have traveled abroad to advise us regarding their observations on bird-protective conditions.

"The Fourth Bulletin of the International Committee for Bird Preservation will gladly be furnished upon request.

Yours sincerely,

T. GILBERT PEARSON,
President Emeritus,
Nat'l. Ass'n. of Audubon Societies."

Dr. Pearson is Chairman of the International Committee. The address of the American office is 1775 Broadway, New York, N. Y.

*[Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Ecuador, Finland, France, Germany, Great Britain, Hungary, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Rumania, Sweden, Switzerland, Union of South Africa, United States, Yugoslavia.]

The Audubon Nature Camp for Adult Leaders

According to a communication received from Mr. John H. Baker, Executive Director, National Association of Audubon Societies, the Audubon Nature Camp for Adult Leaders organized last year is a demonstrated success. It was attended by two hundred and twenty-three nature students representing twenty-four states and two Canadian provinces.

The primary purpose of the camp is to convey a knowledge of methods which have been successfully used in popularizing the study of birds, animals, insects, flowers, marine and other wild life. Instruction is concentrated on actual field observation and on equipping each person attending with a definite project program for the ensuing twelve months. Certificates are awarded to those campers who satisfactorily complete the course of lectures, reading assignments, conferences and field work.

The camp is located at the Todd Wild Life Sanctuary one-eighth of a mile off the picturesque coast of Maine on Hog Island in sheltered Muscongus Bay. Covered with a primeval stand of evergreens, its shores laved by the waters of the Atlantic, the island is ideally suited for a nature study camp. Wild life abounds—a great variety of birds, including Eagles, Ravens, Ospreys, Great Blue Herons and an extraordinary number of song birds nest on or about the island, while on outcropping ledges and small islands in the bay one finds breeding colonies of Gulls, Terns, Eiders, Cormorants, Guillemots and Petrels. On the island grow a fascinating variety of ferns, mosses and lichens. Over five hundred kinds of wild flowers have been recorded in the vicinity. The surrounding waters literally teem with marine life; porpoises, seals and occasionally whales are observed not far off-shore.

The director of the camp is Mr. Carl W. Buchheister. The personnel consists of trained specialists, well versed in camp and nature lore, and capable of imparting their own infectious enthusiasm. They are prominently known as naturalists and teachers. A qualified physician or nurse will be in attendance. Ample hospital facilities for private treatment are available in nearby towns.

A fee of fifty dollars for two weeks includes board, lodging, tuition and transportation on regularly scheduled field trips. This is a non-profit undertaking and the rates have therefore been set at a minimum. Enrollments for a period of less than two weeks can not be accepted but campers may enroll for additional two week periods. The camp opens this year on June 11 and runs through September 2.

For additional information write the National Association of Audubon Societies, 1775 Broadway, New York, N. Y.



From a Drawing by Earl G. Wright.

Price List of Literature for Sale—

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FIELD CARDS

Members will find the Field Cards of the Audubon Society and the Chicago Academy of Sciences a great help in keeping their records. As the birds are listed according to the order followed by the check list of the American Ornithologists' Union, it would aid the editor if all reports were submitted on such cards, with a letter giving additional data. The cards are available at the Audubon Society office for ten cents a dozen.

No. 1—Birds of Northeastern states (63).....\$0.10

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THE AUDUBON ANNUAL BULLETIN



Number 28
1938

PUBLISHED BY

THE ILLINOIS AUDUBON SOCIETY

The Chicago Academy of Sciences

Lincoln Park at Clark and Ogden Ave.

Chicago, Illinois

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THE ILLINOIS AUDUBON SOCIETY

For the Protection of Wild Birds

Affiliated with

The Chicago Academy of Sciences

Lincoln Park at Clark and Ogden Ave.

Chicago

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THE AUDUBON ANNUAL BULLETIN

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FOR THE PROTECTION OF WILD BIRDS

CONTENTS

Frontispiece	<i>Earl G. Wright</i>	4
A Famous Song Sparrow and His Eleven Wives	<i>Margaret Morse Nice</i> ...	5
Note on Birds Observed in Lower Texas, June 7-17, 1937.....	<i>Frank A. Pitelka</i>	7
A Message from the President.....	<i>C. W. G. Eifrig</i>	17
We Are Linking Up with the 4H Club Movement.....		18
On Scientific Collecting.....	<i>Edward R. Ford</i>	19
The Changing Status of Birds in Regard to Their Abundance	<i>C. W. G. Eifrig</i>	21
Conservation Council Excursion.....	<i>Catherine A. Mitchell</i> ...	24
"Wing's Rest" Free Cafeteria.....	<i>E. T. Baroody</i>	25
Quincy Bird Calendar for 1937.....	<i>Thomas E. Musselman</i> ...	27
Episode	<i>Edward R. Ford</i>	31
The Abundance of Birds in the Chicago Region	<i>Rudyard Boulton</i>	32
The Sandpipers of Lincoln Park.....	<i>Will Dreuth</i>	35
A Proposed Conservation Project.....	<i>Robert E. Smart</i>	38
A Summer Bird List from Warren Woods, Near Sawyer, Mich.....	<i>Esther A. Craigmile</i> ...	39
A Florida Bird List for New Year's Day...	<i>Catherine A. Mitchell</i> ...	40
Christmas Census of 1937.....		41
Notes and News.....		44



"4M devoted himself to singing."

THE AUDUBON BULLETIN

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A Famous Song Sparrow and His Eleven Wives

BY MARGARET MORSE NICE

Male corn buntings in England have been found to have several mates at a time, even in one case as many as seven, but this was not true with the song sparrows near Columbus, Ohio, where monogamy was the rule and only four cases of bigamy came to my notice.

The most important among the 735 song sparrows I banded was 4M, who lived in our garden for eight years. During this period he had eleven different mates.

The birds were distinguished by means of numbered aluminum bands and colored celluloid bands, both supplied by the United States Biological Survey. Besides this, I knew by heart each one of 4M's nine songs, and I followed him by ear even more than I did by eye.

4M was a permanent resident, staying in our garden the year around. On the forty acre tract which I studied, about half the nesting males of this species were resident, while the other males and the majority of the females left for the South in October and returned in late February or March.

4M's first wife was unbanded; in 1928 I saw her and her husband protesting at a cowbird that was eating one of their eggs, but soon after that she disappeared and 4M was left a widower and devoted himself to singing.

The next year I settled down to study 4M and Uno and their mates; I have told somewhat in detail of the adventures of these four birds in *Bird-Lore* (July, September and November, 1936). 4M and his mate Quarta made four attempts at nesting; two came to grief, but from the third attempt they raised four young and from the last attempt one.

Of 4M's eleven mates only one was a resident, a bird that joined him in February of 1930 only to disappear shortly after. A few days later he obtained another mate that I called Chatvar. They made three unsuccessful attempts at nesting, after which Chatvar disappeared. Before long a neighbor's wife followed her cowbird step-child into 4M's territory, and instead of returning to her husband, remained with 4M, built a nest in his rose-bush and raised four babies. This bird—Rosemary—returned the next two years, but 4M was already mated before her arrival; she settled next door, the third year her mate being the grandson of one of her neighbors of 1930.

4M's mate in 1931—Blueberry—joined him again in 1932—the only time this happened with him. The first year they raised a brood

from which a son survived and took up his territory two-thirds of a mile from his birthplace. None of his songs resembled those of his father. On May 24, 1932, I had the pleasure of banding two grandchildren of my beloved 4M.

Although Blueberry had rejoined 4M, some enemy must have caught her in April. The next month, 4M had a new wife, a bird banded in the nest the previous year. Unfortunately their nest was broken up and the young mate disappeared. The same thing happened the following year with his mate Sweetbriar.

In 1934, however, with Goldenrod he had the satisfaction of raising a brood once more, and from this nesting a daughter survived; she was a resident and settled only 50 yards from her birthplace. When Goldenrod returned in 1935, 4M was already mated to a disagreeable bird I named Xantippe. Goldenrod found another husband some 400 yards away.

Xantippe appeared to care little for her husband, driving him at times in an ill-tempered way, and also tyrannized over a pair of neighboring song sparrows, the 221s. She started to build on April 20, but worked in a half-hearted manner and did not lay her first egg for thirteen days! Three days later a house wren had punctured two of her eggs. I never saw Xantippe afterwards.

4M sang and sang; on May 11 I took his all day record from his awakening at 4:44 to his last song at 7:43. In the fifteen hours he gave 2,305 songs.

On the 28th his singing suddenly slackened. Upon investigation I found he had won a wife, and she was no other than Dandelion; 221's former mate, living right next door! One of her young had evidently wandered into 4M's land, and she had followed it, deserting her poor husband. She built her nest in the same rosebush where Quarta and Rosemary had made theirs five and six years earlier.

I was eager to make a detailed study of 4M's care of his young, but an imperative engagement in Massachusetts would take me east just as the babies were due to hatch. I decided on an experiment; I exchanged Dandelion's fresh eggs with a set that was ready to hatch. When I slipped into the blind I had fixed by her nest, I found that Dandelion had accepted the extraordinary precocity of her family with the utmost calm, but 4M apparently was unaware of the event. A fellow ornithologist had promised to take pictures of the nest and the next morning I was out early with anticipations of watching 4M's devotion to the babies. The nest was overturned and its contents gone.

The birds were not discouraged; Dandelion built her third nest in a mass of bed straw, but again fate was against them. A gardener laid bare the nest with its two eggs. The next day the only new egg was a cowbird's. I trust the pair had better luck with their fourth attempt!

Since we usually left Columbus for a part of the summer my records as to 4M's family life are not complete. He might have got a second mate in 1928 and possibly a third one in 1932; he probably

raised more young in 1931 and 1934 after our departure. Of his seventeen nests when I was present during the eight years, only five were successful and only thirteen young were fledged.

Once again 4M's lovely songs welcomed us home in September, 1935. That December he disappeared, a victim at last of some enemy.

In the early years he was an overbearing bird, dominating his neighbors, but later he became a peaceable citizen. He was the most zealous singer of any of the song sparrows; he started in late January or in February, according to the weather, and sang well into July, starting again the last of September and singing splendidly in pleasant days in October.

4M was a remarkable bird, spirited, a distinguished singer, and notable also for his long life.

5708 Kenwood Avenue, Chicago, Ill.

Notes on Birds Observed in Lower Texas

June 7-17, 1937

BY FRANK A. PITELKA

The avifauna of the Lower Rio Grande Valley of Texas is unusual in many respects. Whether to the ornithologist who would take to the field for the sheer joy of seeing birds that were to him but color plates before, or to the ecologist who would find absorption in the many and varied associations that fill the delta region of the Rio Grande with perplexing problems, or whether even to the collector who would be prone to pass all bounds in his eagerness to secure what little of the rare is left—to these and all other ornithologists the Valley presents a veritable paradise which is equalled or possibly surpassed by but a few regions of the United States.

To account for the number of more than 350 species and subspecies recorded in southern Texas, one has but to visualize the geographic position of this region. In the summer, a number of Mexican and Central American species such as the red-billed pigeon, groove-billed ani, and Sennett's warbler, reach the northern limit of their breeding ranges in the delta of the Rio Grande. In addition to these, which are found within the United States only in southern Texas, there are numerous permanent residents belonging to the tropical class, such as the chachalaca, Merrill's parauque, Couch's kingbird, derby flycatcher, and green jay. Of the truly tropical vertebrate fauna present in lower Texas, the class Aves leads in number of species. During the migrating season, the routes of many species of the East, West, and Plains converge there, following naturally the contour of the continent. In winter there is overlapping of ranges in southern Texas between those species staying to the south through

Mexico¹ and those northern species which reach their southern limit in the region of the Rio Grande. For these reasons there is an unusual abundance of bird life in this area.

It is to be regretted that the encroachments of civilization, with the fast clearing of mesquite and cactus and the cultivation of land, are affecting markedly the abundance of those birds which are to be found only in southern Texas and which make this plant association their habitat. The chachalaca can be mentioned in particular. I know of no land in the Valley set aside for the benefit of wild life which is characteristic of chaparral and mesquite thickets. The hunting situation, as in other sections of the country, is deplorable. Southern Texas is advertised widely for its abundant (but fast-decreasing) game. Those who have lived in the region for a decade or so cite the example of the white-winged dove, which has decreased in numbers very noticeably. Compared to the annual kill, present wild-life protection is not appreciable. Other sections of the country are publicized for their variety and abundance of bird-life by conservationists who would aim to *preserve* that variety and abundance. Why cannot this region enjoy more of such fame among others besides hunters and collectors?

The following annotated list is composed of species observed on June 8th and 9th at Laredo (Webb County), on June 10th and 11th at Mission (Hidalgo County), and the following week spent in the region south of Harlingen and LaFeria, on trips to Olmito, Boca Chica, the coastal prairies and lagoons between the Point Isabel Road and the Boca Chica Road, in the direction of Horsehead Island beyond Rio Hondo, and to Green Island in the Laguna Madre (Cameron County). All of these localities are in the Lower Austral (Sonoran) zone, modified by the semi-tropical strip bordering the Gulf of Mexico and the tropical arm reaching up from the lower coastal region of Tamaulipas. Comments on the status of species are exclusive of observations made about Laredo; this seemed advisable in view of the distance to the north from the delta region and the topography of the land, which sets it apart from the lower Valley. In every case, observations made in the region about Laredo are specifically referred thereto.

This visit having been of necessity short, my purpose was nothing more than to see as many species as possible within the limited time. In this direction, I was aided immeasurably by the guidance of Mr. Arthur T. Hale of Mission and Mr. L. Irby Davis of Harlingen, to whom I am indebted for their kindnesses. Obviously, with their assistance, particularly that of Mr. Davis, the leading ornithologist of the region, I was able to observe species for which alone I might have searched days or even weeks. I am further indebted to Dr. H. C. Oberholser for information and assistance provided in connection with subspecies.

¹Of particular interest is Mr. L. Irby Davis's location of wintering grounds of the Black-throated Green and Wilson's Warblers. *Wilson Bulletin*, vol. 46, 1934, p. 223; vol. 47, 1935, p. 272.

All subspecific listing is based on the A. O. U. Check-List (1931) or on more recent publications, as cited, which have shed new light on the taxonomic problems involving new races or the validity of those previously described.

MEXICAN GREBE (*Colymbus dominicus brachypterus*). June 11, Mission, and June 12, Harlingen. Only one individual seen in each case, the latter in the company of a small flock of coots.

WHITE PELICAN (*Pelecanus erythrorhynchos*). Fairly abundant on the lagoons of the coastal prairies. It is less frequently seen inland about the horseshoe lakes characteristic of Valley topography. A flock of 110 was seen June 13 on prairie pond east of Brownsville.

MEXICAN CORMORANT (*Phalacrocorax olivaceus mexicanus*). Common.

WATER-TURKEY (*Anhinga anhinga*). Rather common about the *bancas* or ox-bow lakes south of Harlingen and LaFeria.

MAN-O'-WAR-BIRD (*Fregata magnificens*). One seen at Green Island, June 15.

WARD'S HERON (*Ardea herodias wardi*). Noted only on coastal lagoons and on Green Island, where it is one of the less numerous breeding species. About 100 seen at the latter location, a small percentage of which were full-grown young on or about the nests.

AMERICAN EGRET (*Casmerodius albus egretta*). Apparently uncommon. A few noted at Mission and Harlingen and on the coastal lagoons. Breeding on Green Island in small numbers, where young on the nest were observed.

SNOWY EGRET (*Egretta thula thula*). This and the following species were the most abundant herons breeding on Green Island.

REDDISH EGRET (*Dichromanassa rufescens rufescens*). A few seen on the coastal lagoons in the direction of Horsehead Island. Numerous on Green Island, comparatively speaking, but according to the warden, very much decreased in numbers because of an unusually poor breeding season. This may have been due to an accumulation of factors, of which the major one may have been the great-tailed grackles, which annually destroy literally thousands of heron and egret eggs on this island. Control measures are promised by authorities in charge. Only a few nests and young were seen.

LOUISIANA HERON (*Hydranassa tricolor ruficollis*). Rather abundant on the coastal lagoons; uncommon inland. Breeds on Green Island.

LITTLE BLUE HERON (*Florida caerulea caerulea*). Frequently seen about the *bancas* and *resacas* of the Valley. None seen on the coastal lagoons or Green Island.

EASTERN GREEN HERON (*Butorides virescens virescens*). Abundant; a few seen at most every swamp visited.

BLACK-CROWNED NIGHT HERON (*Nycticorax nycticorax hoactli*). Rather uncommon inland; breeds on Green Island.

YELLOW-CROWNED NIGHT HERON (*Nyctanassa violacea violacea*). One seen on the coastal prairies on June 13.



Photo by A. M. Bailey.

Little Blue Heron, a common species nesting along the Gulf Coast.

WOOD IBIS (*Mycteria americana*). Small flocks seen at Mission, southwest of Harlingen, and on the coastal prairies. Largest flock (30) noted at the Resaca de los Cuates south of LaFeria.

WHITE-FACED GLOSSY IBIS (*Plegadis guarauna*). Two observed at Harlingen on June 12.

WHITE IBIS (*Guara alba*). Four seen on Green Island. According to Mr. Larson, the warden, there was one nest this year.

ROSEATE SPOONBILL (*Ajaia ajaja*). A flock of sixty observed at Green Island, where they come to feed, returning to the mainland for the night. A flock of 30 found at the Resaca de los Cuates, which is practically on the Cameron-Hidalgo county line close to the Rio Grande. Also a few seen on the coastal lagoons.

BLACK-BELLIED TREE DUCK (*Dendrocygna autumnalis autumnalis*). A pair seen on June 11 at Mission.

MOTTLED DUCK (*Anas fulvigula maculosa*). Rather common on the coastal lagoons.

AMERICAN PINTAIL (*Dafila acuta tzitzihoa*). Two pairs observed on prairie pond June 13 at the east end of Loma del Muerto along the Boca Chica-Brownsville road.

BLUE-WINGED TEAL (*Querquedula discors*). Two males with pintails.

SHOVELLER (*Spatula clypeata*). Thirteen (two females) with pintails.

CANVASBACK (*Nyroca valisineria*). Two pairs with pintails.

LESSER SCAUP DUCK (*Nyroca affinis*). Three seen on June 15 on coastal lagoon near Horsehead Island.

MASKED DUCK (*Nomonyx dominicus*). One pair staying at a *resaca* south of Harlingen.

MEXICAN TURKEY VULTURE (*Cathartes aura aura*). Rather common; seen less frequently than the following. This form has recently been recorded from Cameron County by Brandt (1936, p. 325) and Brewster County by Van Tyne and Sutton (1937, p. 16). Dr. Oberholser writes that the northern limits of the range of *aura*, though not definitely known, are approximately southern and central western Texas to southern Arizona.

BLACK VULTURE (*Coragyps atratus atratus*). Common.

TEXAS RED-SHOULDERED HAWK (*Buteo lineatus texanus*). Observed June 10 and 11 at Mission and June 13 at Harlingen. Apparently one of the common hawks.

SWAINSON'S HAWK (*Buteo swainsoni*). One noted south of Laredo on June 9.

SENNETT'S WHITE-TAILED HAWK (*Buteo albicaudatus hypospodius*). One noted at Zapata on June 9.

HARRIS'S HAWK (*Parabuteo unicinctus harrisi*). Rather common. Nest at Laredo at the top of a large mesquite tree; it contained one downy young June 8.

AUDUBON'S CARACARA (*Polyborus cheriway auduboni*). Seen June 11 at Mission and June 12 at Harlingen.

CHACHALACA (*Ortalis vetula vetula*). Common in a large, virgin tract of mesquite and cactus (Adams tract) southwest of Harlingen, where on June 12 six pairs were observed and heard, all perched near or at the top of taller trees and performing the vocal duets characteristic of the mating season well described by Pearson (1921, p. 518).

TEXAS BOB-WHITE (*Colinus virginianus texanus*). Common.

CHESTNUT-BELLIED SCALED QUAIL (*Callipepla squamata castanogastris*). Observed only at Laredo on June 8, where they appear to be fairly common.

PURPLE GALLINULE (*Ionornis martinica*). Apparently uncommon and very local in distribution. Six seen June 14 on a small *resaca* south of Harlingen.

FLORIDA GALLINULE (*Gallinula chloropus cachinnaus*). A few found at most every *resaca* visited.

AMERICAN COOT (*Fulica americana americana*). Observed June 12 at Harlingen; June 13 a flock of approximately 100 on a prairie pond along the Boca Chica-Brownsville road.

WILSON'S PLOVER (*Pagolla wilsonia wilsonia*). Common on the coastal prairies. Young perhaps a week old observed with adults June 13.

LEAST TERN (*Sterna antillarum antillarum*). Common in the coastal region; a few seen at both Harlingen and Mission.

ROYAL TERN (*Thalasseus maximus maximus*). Flock of 16 at Green Island on June 15.

CASPIAN TERN (*Hydroprogne caspia imperator*). Noted near the coast on June 13 and 15.

BLACK TERN (*Chlidonias nigra surinamensis*). A few seen at Harlingen; one at Mission on June 11; more numerous near the coast. The black and least terns are the only members of *Laridae* noted as far inland as Mission.

BLACK SKIMMER (*Rynchops nigra nigra*). Rather common on the coast; a small colony of about 25 at Green Island, where nesting activities had not yet been undertaken because of persistent high water.

RED-BILLED PIGEON (*Columba flavirostris flavirostris*). One pair noted southwest of Harlingen on June 17.

WESTERN MOURNING DOVE (*Zenaidura macroura marginella*). Very common.

EASTERN WHITE-WINGED DOVE (*Melopelia asiatica asiatica*). Common.

MEXICAN GROUND DOVE (*Columbigallina passerina pallescens*). Common.

INCA DOVE (*Scardafella inca inca*). Noted only at Laredo on June 8.

WHITE-FRONTED DOVE (*Leptotila fulviventris angelica*). Rather common.

YELLOW-BILLED CUCKOO (*Coccyzus americanus americanus*). Rather common. Nest containing two eggs found at Harlingen on June 12.

ROAD-RUNNER (*Geococcyx californianus*). Young birds taken from the nest by Mexicans observed at Laredo June 8; also noted June 12 at Harlingen and June 15 near Rio Hondo.

GROOVE-BILLED ANI (*Crotophaga sulcirostris sulcirostris*). June 13 and 17 at Harlingen.

TEXAS SCREECH OWL (*Otus asio mcalli*). One (gray phase) seen at Laredo, June 8.

MERRILL'S PARAUQUE (*Nyctidromus albicollis merrilli*). Apparently rather common in the mesquite and cactus thickets of the region about Harlingen.

CHERRIE'S NIGHTHAWK (*Chordeiles minor aserriensis*). Noted at Mission on June 10 and on the coastal prairies on June 13 and 15.

TEXAS NIGHTHAWK (*Chordeiles acutipennis texensis*). Rather common throughout the region.

TEXAS KINGFISHER (*Chloroceryle americana septentrionalis*). Fairly common.

BLACK-BELLIED PLOVER (*Squatarola squatarola*). One observed near Boca Chica on June 13; flock of four noted on coastal lagoon near Horsehead Island on June 15 (all in winter plumage).

KILLDEER (*Oryzochus vociferus vociferus*). Rather common.



Photo by A. M. Bailey.

The Avocet breeds on the Coastal Prairies.

WILLET (*Catoptrophorus semipalmatus semipalmatus*). Common on the coastal prairies.

LONG-BILLED CURLEW (*Numenius americanus americanus*). Rather common on the coastal prairies.

GREATER YELLOWLEGS (*Totanus melanoleucus*). Flock of 10 seen June 13 on prairie pond at east end of Loma del Muerto, Boca Chica-Brownsville road.²

LESSER YELLOWLEGS (*Totanus flavipes*). Flock of 7 seen June 13, on coastal prairie pond.

LONG-BILLED COWITCHER (*limnodromus priseus scolopaceus*). Flock of 15 in winter plumage seen June 13.²

SEMIPALMATED SANDPIPER (*Ereunetes pusillus*). Flock of fifty seen on June 15 on coastal lagoon near Horsehead Island.

AVOCET (*Recurvirostra americana*). Three observed on June 13 and six on June 15 near Horsehead.

BLACK-NECKED STILT (*Himantopus mexicanus*). Apparently common throughout the region. Adults with one young observed south of Harlingen on June 14.

LAUGHING GULL (*Larus atricilla*). Common on the coast.

²See Season Report, Rio Grande Delta Region, by L. Irby Davis, *Bird-Lore*, vol. 39, 1937, p. 324; gives list of 26 species noted by the writer with Mr. Davis on June 13. Of these nine were northern species staying in summer within their winter ranges.

FRANKLIN'S GULL (*Larus pipixcan*). Two observed in winter plumage June 13 on coastal prairies.³

GULL-BILLED TERN (*Gelochelidon nilotica aranea*). June 13 on coastal lagoon and June 15 near Horsehead.

FORSTER'S TERN (*Sterna forsteri*). June 12, one pair at the city lake of Harlingen; several noted on the coastal prairies on June 13.

GOLDEN-FRONTED WOODPECKER (*Centurus aurifrons*). Common.

TEXAS WOODPECKER (*Dryobates scalaris symplectus*). Common.

COUCH'S KINGBIRD (*Tyrannus melancholicus*). Rather common; one pair also observed at Laredo, June 8.

SCISSOR-TAILED FLYCATCHER (*Muscivora forficata*). Though seen in every locality visited, only a few were noted.

DERBY FLYCATCHER (*Pitangus sulphuratus derbianus*). Several observed both at Mission and Harlingen. Nest seen June 13 at Olmito, built in Spanish moss (which, incidentally, favors very highly the one species of elm in the Valley, *Ulmus crassifolia*). The nest was perfectly hidden and could be located only by the entrance hole. It was high and inaccessible. At the time of our visit (Mr. Davis and the writer), the young birds had already left the nest and could be heard in the vicinity.

MEXICAN CRESTED FLYCATCHER (*Myiarchus tyrannulus nelsoni*). Common.

VERMILION FLYCATCHER (*Pyrocephalus rubinus mexicanus*). Very local in distribution, as far as summer residents are concerned; apparently restricted to one colony in the clay dune region of the coastal prairies between Brownsville and Boca Chica, where on June 13 five individuals including two young were observed. Four pairs constituted the colony. A nest with three eggs was found. Due to the mesquite-chopping activities of a Mexican goat-herder (and perhaps to other predators), several nests of these birds were destroyed.⁴

TEXAS HORNED LARK (*Otocoris alpestris giraudi*). Fairly common on the coastal prairies.

LESSER CLIFF SWALLOW (*Petrochelidon albifrons tachina*). A colony of 150 observed on June 14 south of LaFeria near the Rio Grande and the county line, where they were nesting underneath a bridge across an irrigation ditch.

GREEN JAY (*Xanthoeca luxuosa glaucescens*). Seen June 10 at Mission and June 12 and 13 at Harlingen.

WHITE-NECKED RAVEN (*Corvus cryptoleucus*). Noted only at Laredo on June 8 and 9.

BLACK-CRESTED TITMOUSE (*Baeolophus atricristatus atricristatus*). Rather common.

ARIZONA VERDIN (*Auriparus flaviceps flaviceps*). Noted only at Laredo on June 8 and 9.

TEXAS WREN (*Thryomanes bewicki cryptus*). Fairly common.

³*Ibid.*, p. 325.

⁴See Davis, *op. cit.*, p. 324.

LOMITA WREN (*Thryothorus ludivicianus lomitensis*). Fairly common.

NORTHERN CACTUS WREN (*Heleodytes brunneicapillus couesi*). One pair observed southwest of Harlingen on June 12th.

WESTERN MOCKINGBIRD (*Mimus polyglottos leucopterus*). Very, very common.

SENNETT'S THRASHER (*Toxostoma longirostre sennetti*). Common.

BROWNSVILLE THRASHER (*Toxostoma curvirostre oberholseri*). Several noted southwest of Harlingen on June 12. Some doubt has been expressed as to the validity of this race (Van Tyne and Sutton, 1937, p. 71).

PLUMBEOUS GNATCATCHER (*Polioptila melanura melanura*). Only one observed along Chacun Creek east of Laredo on June 9.

RIO GRANDE VIREO (*Vireo griseus micrus*). Common.

BELL'S VIREO (*Vireo bellii bellii*). Noted only at Laredo, where they are apparently common.

SENNETT'S WARBLER (*Compsothlypis pitiayumi nigrilora*). Distributed in fair numbers coincidentally with Spanish moss. Numerous along the Rio Grande on the Lomita Ranch at Mission.

TEXAS YELLOWTHROAT (*Geothlypis trichas insperata*). Fairly common. The summer resident of this species inhabiting the Rio Grande delta region has been described as a new form since the publication of the AOU Check-list (Van Tyne, 1933, p. 3).

LONG-TAILED CHAT (*Icteria virens longicauda*). Common. Also noted at Laredo, where they were apparently common along and near the mouth of Chacun Creek and along the Rio Grande.

RIO GRANDE MEADOWLARK (*Sturnella magna hoopesi*). Fairly common about Harlingen, but very common on the coastal prairies. None seen at Mission.

RIO GRANDE RED-WING (*Agelaius phoeniceus megapotamus*). Very common.

ORCHARD ORIOLE (*Icterus spurius*). Common. Several also noted at Laredo.

AUDUBON'S ORIOLE (*Icterus melanocephalus auduboni*). Observed June 10 at Mission, and June 13 at Harlingen.

SENNETT'S ORIOLE (*Icterus cucullatus sennetti*). Most common of the orioles.

GREAT-TAILED GRACKLE (*Cassidix mexicanus mexicanus*). Very common.

DWARF COWBIRD (*Molothrus ater obscurus*). Common.

RED-EYED COWBIRD (*Tangavius aeneus involucratus*). Less common than the preceding.

SUMMER Tanager (*Piranga rubra rubra*). Fairly common, but locally distributed.

GRAY-TAILED CARDINAL (*Richmondia cardinalis canicauda*). Common.

TEXAS PYRRHULOXIA (*Pyrrhuloxia sinuata texana*). Noted only at Laredo on June 8 and 9, where they appear to be quite common.

WESTERN BLUE GROSBEAK (*Guiraca caerulea interfusa*). Fairly common, though somewhat local in distribution. Griscom and Crosby (1926, p. 26) list the Eastern Blue Grosbeak for this region, but the western form is listed here on the authority of Dr. H. C. Oberholser.

VARIED BUNTING (*Passerina versicolor versicolor*). Not uncommon locally.

PAINTED BUNTING (*Passerina ciris*). Apparently common about Laredo; only one noted at Harlingen on June 12. If the race *pallidor* is recognized, as suggested by Van Tyne and Sutton (1937, p. 100), then the present form is probably *P. c. ciris*.

DICKCISSEL (*Spiza americana*). Two observed on June 12 at Harlingen.

SHARPE'S SEEDEATER (*Sporophila moreletii sharpei*). Fairly common in the willow and big tree-vine association about the Rio Grande and scattered *resacas* on the Lomita Ranch and south of Harlingen. Very common locally.

TEXAS SPARROW (*Arremonops rufivirgatus rufivirgatus*). Common.

WESTERN LARK SPARROW (*Chondestes grammacus stigatus*). Rather common about Harlingen; several noted on the clay dunes of the coastal prairies.

CASSIN'S SPARROW (*Aimophila cassini*). Noted only on the coastal prairies, where it was very common.

BLACK-THROATED SPARROW (*Amphispiza bilineata bilineata*). Very common about Laredo. In the Valley, this species was observed only in the clay dune region of the coastal prairies on June 13, where a nest containing three young (one dead) was observed, having been discovered with eggs previously by Mr. Davis.

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A Message From the President

OUTLOOK FOR 1938

Again we may preface our remarks with an optimistic note or two. I think it may safely be said that conservation, not only of birds, but of all forms of life, is on the march. The conviction is becoming increasingly stronger that it is high—yes, the highest—time to save what may be saved in and of our great outdoors. Furthermore, this conviction is being crystallized into action more than ever before and, still better, into concerted action. The restrictions imposed by the federal Bureau of Biological Survey upon wholesale butchery of game birds, notably of ducks and geese, have certainly put a crimp into this nefarious business, for business it largely is, not sport. We are by no means assured that these regulations have been everywhere lived up to, nor that transgressions have been generally abated. With the naive—if not worse—disregard of laws so rampant in our country, that would be too much to expect, especially when it is condoned or even encouraged by politicians and office-holders in and out of hunting clubs. Violators, however, have become much more circumspect and timid in their killing operations. The most hopeful feature of the situation is that the federal government has now laid a firm hand on hunting and hunters, a hand that will become increasingly heavy on law-breakers, and greater effectiveness in the saving of the remnants of our wildlife may be hoped for.

How much more needs to be done to eliminate game butchery, and make sport decent, sensible and law-abiding, can be seen from an excerpt from the following article entitled "The Duck Hunting Racket" (*American Forests*, February, 1937) :

"Step into the cold-room of a produce house and gaze upon several thousand canvasback and black ducks destined, at fancy prices, to grace the tables of senators, diplomats, financial and social leaders in the National Capital.

"Help pick up within sight of the Washington monument nearly two hundred dead and dying ducks slain by one blast from a nine-tubed market hunter's gun. Or stand alongside a former chief conservation officer of the United States, his identity concealed, and watch a long line of "paying guests" (at \$10 per fifteen ducks) pour magazine gunfire into an escaping curtain of bewildered mallards not ten yards high.

"Hear men of wealth and ostensible standing in a community, too lazy to hunt quail, boast of their wives' buying arrangements with table bootleggers. Witness, season after season, a parade of hunters through commercial duck and goose shooting abattoirs, where, for a *per diem* beyond the reach of the average hunter, dissolute gunning tactics accumulate quick meat.

"Such illustrations are mere drops in the bucket to what has and is taking place to obstruct national wildlife restoration. But they

serve, in a small way, to show how horribly the waterfowling candle has been burned at both ends."

We in Illinois have in our state one of the three worst abattoirs in the country—that slaughter-house for ducks and geese along the river that bears our name. Let us exert all the pressure we can to secure finally for Illinois that desideratum—so necessary if conservation is to get on its feet at all in our state—a non-political conservation commission, composed of expertly trained wildlife managers or conservationists. Let us use our ballot wisely and effectively!

Another point of prime importance is the addition of more members to the Illinois Audubon Society. The depression has wrought havoc with our membership roll. Let us all try and recoup the losses. It should be possible to find a thousand people in our state willing to become members. Then we would perhaps be able to attain one of our most worth-while and essential objectives: to maintain a full-time field agent who would travel about in the state, organize local branch Audubon societies, get in contact with teachers and leaders of thought in all cities and towns, and address schools, clubs and societies of all kinds for the purpose of arousing interest in conservation and cooperation with it. Until that is possible, see if you cannot start a local Audubon society or wildlife protection club. To bring this about let us use the local press in various ways; let us write to our state and federal legislators, especially when the enemies of protection seek to launch some nefarious scheme; let us be willing to address people old and young; in short, let us try to make our communities conservation-minded!

C. W. G. EIFRIG, *President*,
River Forest.

We Are Linking Up With the 4H Club Movement

Everyone who has looked into the matter knows what a refreshing and promising movement the 4H Club idea is. The results at the Chicago Stock Show, among others, proclaim it loudly. When, therefore, we were approached by the men directing the movement in Illinois to make a contribution toward it—not in a pecuniary sense—our board of directors at once resolved to accept the invitation. Prof. C. W. G. Eifrig, our president, was asked to go to the annual encampment. This was held at Lake Bloomington, near the city of that name, at the end of August and beginning of September. Prof. Eifrig found the boys and young men from the farm a very wide-awake and worth-while group. He gave them a talk on hawks and owls and the farmer, branching out into many angles and aspects of bird protection and conservation. To say that his words were followed with keen interest is putting it mildly, as was also evidenced by the almost never-ending volley of questions and suggestions put to him after the lecture. The Society has resolved to support this worthy movement as much as possible each year.

On Scientific Collecting

A former member of the Illinois Audubon Society recently resigned because its affiliate, the Chicago Academy of Sciences, collected birds for scientific specimens. There is no subject under the sun but must engage a difference of opinion. A just and temperate person will respect an opposite view. So do we now with respect to that of our former member. However, it now seems proper to present our ideas of the matter.

When shall man cease to destroy Nature? Shall it be when she has met his physical requirements—when her forests have been cut, her rivers diverted, her swamps drained? When her rich meadows have been made arid and her beasts, feral and domestic, have been killed for food and raiment? Or shall it be when his intellectual needs, too, have been answered? What of knowledge? What of books and pictures? The destruction of trees for the pulpwood out of which a “bird book” is made may result more disastrously to continuing bird population than the killing of the specimens required by the artist for its illustrations.

There is too much complexity in human affairs, especially as they affect Nature, to cast out that which has not been proved worthless. Crows and wolves must not take possession of the land. Neither is it well to extinguish them, knowing no more than we do of their place. Lumbermen and engineers must not take possession of the land. Neither should their kind utterly perish. So, too, of men whose devotion is to natural history and the maintenance of museums by which its studies are possible.

Without natural history museums there would have been no Ridgway, no Chapman, no Fuertes, no Forbush, no Eaton, no Florence Merriam Bailey, no Roberts, no Bent, no Howell. Without the knowledge which these have made available it is questionable whether Audubon societies would flourish as at present. It is certain that they would not exist save for Audubon, whose name they bear, not because he killed birds but because he delighted in them.

It may be fairly conceded that those who contribute the largest sums to the work of Audubon societies are able to do so because without malice, but inconsiderately and perhaps unwittingly, changing the face of thousands of acres of land, they have destroyed the habitats of many disappearing species. They who destroy would fain protect. If this is true of some industrialists may it not be true of some scientists? It *was* true of Audubon.

EDWARD R. FORD, Newago, Mich.



Photo by A. M. Bailey.

The Laughing Gull nests on coastal islands from Maine to southern Texas.

The Changing Status of Birds In Regard to Their Abundance

BY C. W. G. EIFRIG

Every observer of the outdoors knows and notes with ever increasing wonderment that no two years are alike with things in nature. This is not only true of such obvious features as the weather with its many complications, but also of such phenomena as the behavior and abundance of plants and animals. One year the beans in our garden do exceedingly well, the next year perhaps they are almost a failure even when no late frost had anything to do with it. One year certain trees, or all the trees of the neighborhood, are profuse with blossoms; the next year they are very sparing with bloom, again discounting the frost. One spring about ten or twelve years ago the wild hyacinth (*Camassia esculenta*) was very abundant at River Forest; it came up in places where no one would have expected it to occur. Since then only few or none have been noted there. What recondite forces and factors coaxed those deeply buried bulbs into activity that year and not since?

This is also true of the animal world. The average citizen has the notion that things in nature are as they are, with little or no change, except where man interferes with a heavy, often frivolous, hand, sometimes wantonly and needlessly. As a matter of fact, nothing in the world of nature is stable and unchangeable. Everything is in a constant change or flux, as the ancient Greek philosopher said: *Panta rhei*, everything flows. Thus life forms seem to appear on the stage of life, do well for a while, then decrease and finally disappear. This is also true of organisms that we would very much like to have stay and increase in numbers, such as the birds. One must become conscious of the complexity of nature, of the intricate interplay of physical forces, and of their delicate balance and adjustment.

In a state like Illinois, where so much work in natural history is done, it is desirable, I think, to stop momentarily once in a while and take a kind of inventory. In this present paper I should like to present a few facts regarding the decrease or increase in numbers of certain species of birds in the Chicago area, as they have been impressed on my mind during the last decade or so. I am not following any orderly arrangement, but begin with species in which a decrease is most noticeable.

The lark sparrow has almost entirely disappeared from our area, and apparently from the eastern part of the country in general. Who can find the reason? Fortunately, the western subspecies is very abundant in its chosen range.

A similar deplorable decrease is true of the cliff swallow. Formerly its colonies of gourd-shaped nests could be seen on the barns of many farms, but now only a few straggling colonies remain in

most states east of the Mississippi River. Perhaps the more general painting of barns and the consequent falling down of their nests before any young can be raised may be a partial explanation. In fact, a similar calamity is befalling most swallows. That beloved harbinger of spring, the barn swallow, is woefully decreasing in numbers. This is also true to the purple martin in some places, but to a lesser degree. Only here are we able to assign a definite reason; viz. the coming of the automobile and the consequent disappearance of many or most horse stables, the breeding places of flies.

The migrant shrike has almost disappeared from the roadsides in our region. Formerly a pair could be seen every two or three miles along the road, but now one may drive for days without seeing one. Here the very general cutting down of the Osage orange hedges may be partly responsible, although, on the other hand, there are still plenty of field mice, grasshoppers, and sparrows for their commissary, and hawthorns and plum thickets for nesting sites. However, I know of localities in other parts of the state where they are still tolerably common.

Even that well-beloved little acrobat, the chickadee, formerly so abundant, especially as a migrant, is of late becoming strangely rare in our woods and gardens. Where formerly dozens and scores could be seen, now I often see no more than three or four during the spring or fall migration. What occult cause is operative here?

To a lesser degree this is also true of the bluebird. Whereas they formerly nested in my garden, I now see only three to five in the spring or fall migration. In this case the coming of the starling, which also nests in cavities, may be a partial explanation. In other regions bluebirds seem to be as common as ever.

A tragic case is that of the red-headed woodpecker. Its numbers are going down rapidly owing to the automobile. The bird often settles on the highway to pick up insects and, not being able to get under way fast enough to get out of the path of the deadly menace, is struck and killed. During a drive of several hours in southern Wisconsin I counted seven dead redheads on the road.

In former years the voice of the whippoorwill was one of the commonest summer evening sounds heard in these states. Now they have vanished as a breeding species over a large area. This is probably due to the fact that the farmers use their woodlots as pastures for their livestock, making breeding of this ground-nesting species impossible.

For an entirely different reason the numbers of the yellow warbler, the red-eyed vireo, the warbling vireo, and perhaps the chipping sparrow, seem to be going down, possibly because of the depredations of the cowbird which lays its eggs in the nests of these and other species with the result that the young of the rightful owners perish. Among the flycatchers, the kingbird and the phoebe seem to be going down in numbers for no apparent reason, except perhaps the diminished supply of flies as noted under the swallows.

Deplorable as it is when members of our flora and fauna diminish in numbers or even disappear entirely owing to natural causes over which man has no control, or to unavoidable conditions brought about by our civilization, it becomes downright criminal when it is due to man's carelessness, ignorance, stupidity, greed or a primeval lust of killing. And it is precisely to these causes that the rapid disappearance of whole orders and families of our avifauna is due. Here belong our hawks and owls. Not so many years ago, one or more of these wonderful flyers could be found soaring gracefully over every woodlot in these states, thereby considerably enhancing one's enjoyment of the outdoors. Now one may walk or drive for hours or even days without seeing one. A pitiless war has been waged against them by farmers and sportsmen on the plea that they are destructive to poultry and to game birds. This has occurred in spite of the fact that as early as 1893 our federal Department of Agriculture published an exhaustive treatise on the food of our birds of prey.* On the basis of hundreds of stomach investigations, carried on over a long time, this publication shows that by destroying vast numbers of rodents injurious to crops most of our hawks are more beneficial than harmful, and that most owls are purely useful.

Now as to the contention of sportsmen that hawks and owls are predators, destructive to game birds. Before Columbus discovered America, who shot the hawks and owls? Was there a dearth of game birds then? Were any of them in danger of extinction as many are now? These sportsmen blame this alarming condition on a variety of causes—drought, excessive heat, cold, foxes, crows, hawks, owls and other “predators,” but the true reason is excessive shooting. This is also the mental *niveau* of some political state departments of conservation and their heads.

For the same reason many ducks and shore birds are approaching the verge of extinction. An army of seven million hunting license holders marches out yearly against the pitifully small remnants of wild things. Let us call a stop to it before it is too late!

Similarly, our marsh birds—rails, gallinules and others—are rapidly leaving the scene. This is due to the wholesale draining of swamps much of which is harmful and unnecessary. Many of the remaining marshes are now threatened by the danger of draining, or at least oiling, on the plea that such radical procedure is necessary to control mosquitoes. Firing with cannon at mosquitoes! Placing minnows, notably top minnows (*Gambusia sp.*), would do the work.

While there is no doubt that the white man's agriculture has been helpful to a few species, such as the meadowlark and the bluebird (until recently), one has to look long before being able to discover any species that are on the increase. The only one decidedly so is that lately introduced pest, the starling. The flicker seems to be doing a little better than holding its own.

**Hawks and Owls of the United States*, by A. K. Fisher.

Of late the western meadowlark has steadily extended its breeding range eastward into our region, after having become established at Rockford some years back. Harris's sparrow which formerly migrated north and south only west of the Mississippi River is of late years seen in increasing numbers east of it, in our area and as far east as Ohio.

Last fall, for the first time in many years, enormous flocks of the lesser snow goose, the equally rare blue goose, and small parties of the whistling swan were to be seen.

What is at the bottom of all these striking variations, fluctuations, or cycles?

River Forest.

Conservation Council Excursion

The State Natural History Survey extended an invitation to the Conservation Council of Illinois for a trip on the Illinois River near Havana. On the 23rd of last October twenty-five members of the Council drove about 200 miles down-state to that valley about which bird lovers have heard so much. To hunters all over the country it is known as the best valley in the state for water birds during the fall migration. Practically all the land adjoining the river is occupied by gun clubs or under lease to hunters. We were entertained from 11:00 A. M. until 4:30 P. M. aboard the Anax, the boat used in the work of the Survey, where we not only had a good hot dinner on a cold day, but had many kinds of questions answered by the different members of the Survey staff.

During the trip up and down the river, flocks of cormorants and many ducks were always to be seen. We visited the Chautauqua Lake Migratory Wildfowl Refuge, formerly an irrigation area which did not work, but which more recently has been acquired by the federal Bureau of Biological Survey. There were ducks, and more ducks gathering; still more came in as the sun moved toward the west! Could I count them? No! Shall I estimate—say, 50,000? At any rate, more ducks than I have seen before in a whole year at least. A large proportion of the ducks migrating over the state come along this valley, and they soon sense the area where hunting is not allowed—something for which every bird lover may be thankful! Then came something else for which to be thankful—the sky covered with tiny pink and old rose clouds, a sunset never to be forgotten, along with the clouds of ducks which in memory will long remain.

CATHERINE A. MITCHELL, Riverside.

"Wings' Rest" Free Cafeteria

BY E. T. BAROODY

At the outset of this short account of our activities in feeding the birds, I might just as well stop being prosaic, become ultramodern, and head it "The Birds' W. P. A." "Wings' Rest" is the name we have given to our one hundred by one hundred twenty feet of ground in the city of Berwyn, Illinois, less than ten miles from Chicago's "loop." Our home occupies a part of this land which is in one of the thickly settled sections of the city. Since coming here ten years ago, we have set up a large sign, which only the birds can see, asking them to rest their wings and find the shelter and free food which we have provided for them. Their piercing eyes must have noticed our sign for they have stopped in large numbers! We have seen and recorded ninety-three different species which we think is a marvelous record and a real compensation for the efforts of my late wife and myself to make our yard a shelter and a cafeteria for the birds we loved and enjoyed having with us. We planted shrubs which the birds enjoy, provided water for their baths and pleasure, and made life very comfortable for them at our "hotel." Thus the story of our cafeteria unfolds itself, an easy and pleasant life for our feathered friends and a joy to us.

Any endeavor to attract the birds naturally attracts their enemies. The birds come to feed and their enemies come to feed upon them. Our first effort was to fence the whole lot, but this does not stop the birds' worst enemy, the house cat. Immediately we let our neighbors, and also the cats, know that any trespassing on our land is done at their peril. We favored no breeds of cats nor did we consider the sentiments of the neighbors and owners. Our land was hallowed ground for birds and any cat with courage to enter found life fraught with serious consequences.

Once the question of the cat was well in hand, our attention was turned to less desirable birds such as the house wren, blue jay, cowbird, blackbird, starling, owls and the ever-present menace, the English sparrow. In this direction we did what is humanly possible to drive away such pests without interfering with the wishes and presence of the birds we wanted. We eliminated all chances for nesting of the house wren, caught the sparrows and blackbirds, discouraged the blue jays and starlings. The most effective way of driving away the starling, we found, is to kill one of their number and let it lie on the lawn where the rest could see it. This brought an end to their presence for some time. Our ultimate aim in the whole matter was protection to the birds we wanted and for this purpose we resorted to hard measures at times.

I recall one bright day in the spring three years ago when I heard the pitiful cries of a catbird. I hurried to the spot and found the little pet I had observed building its nest in a shrub under my bed-



A feeding-counter and a portion of "Wing's Rest."

room window watching a blue jay that was systematically destroying its nest. The poor catbird was helpless. In a few seconds I saw to it that the blue jay will never have a chance to destroy more nests. Drastic action is as necessary at times in the bird world as it is in the human world.

At various times of the year and in season the birds find the following provided for them at our cafeteria: sunflower seed, hemp seed, crushed corn, peanut butter, honey, suet, shelled and crushed peanuts, apples, grapes and, at Christmas time, Bird's Christmas Pudding, which we buy already prepared. Outside our dining room window we have a tray that is never without food of some kind. Sunflower seed is always provided and the cardinal is our daily visitor throughout the year. Peanut butter and honey water is placed here in the spring and summer for the robins, catbirds and Baltimore orioles. The honey water is made by dissolving one spoon of honey in three of water. Wire baskets always have an abundant supply of suet in them and the nuthatches and downy woodpeckers come to them daily.

The heaviest items of expense in our cafeteria are the grapes and apples. We always buy the best quality ripe western apples. At the height of the migration season, when the thrashers, robins, thrushes, catbirds, orioles, tanagers and grosbeaks are here we use from ten to fifteen pounds of apples daily. At the end of the day our yard is full of apple shells and it is my duty to gather them. At the end of

the summer and early fall we have in the yard in boxes a constant supply of seedless grapes. Several stores save for us the grapes that fall off the stems and the birds enjoy these very much. I can safely estimate that we use every season from three to five hundred pounds of grapes. It is a great delight to me, when I come home in the afternoon and open the fence gate, to have the robins flock from all over the yard and greet me as if to say, "Our grapes are gone, have you any more?" They are seldom disappointed.

The hard-headed business man or woman will wonder if it pays to spend so much time and money in feeding the birds and protecting them. Judge for yourself. Here is a picture I saw last year. Late one afternoon I had placed about a dozen apples on the lawn for the birds. I was standing inside our front door talking to a friend who suddenly turned to me and exclaimed, "See that beautiful bird!" About fifteen feet from where we were standing and in a space about ten feet square were two brown thrashers, three blue jays, six or seven robins, several catbirds, one cardinal and eight male scarlet tanagers. I have never before seen so many tanagers at one time in a small space. For a moment my heart stood still. It was a scene I will possibly never see again, a marvelous collection of live birds in their beautiful spring plumage, a sight worth riches. *Does it pay?* You answer.

At our cafeteria we have a handsome financial deficit every year, but also a large surplus of joy, and our business of feeding the birds has paid large dividends.

Berwyn.

Quincy Bird Calendar for 1937

BY THOMAS E. MUSSELMAN

JANUARY 1. The usual winter birds are here.

JANUARY 7. Ice and sleet storm has broken every tree in town.

JANUARY 10. Mockingbirds have been reported generally about the feeding trays.

JANUARY 12. A purple finch was sent in for identification. It had been feeding on the seeds of Osage hedge. Robert Painter of LaGrange, Missouri, just across the river, had an American magpie brought in. It had been caught in a rat trap set for mink, and baited with a muskrat body. I feel this must be the same magpie reported November 15 by a farmer ten miles north of Quincy.

JANUARY 16. The winter has been an open one. Herring gulls, and American mergansers have been common along the river all winter with an occasional bald eagle.

JANUARY 17. Saw a large flock of female red-winged blackbirds.

JANUARY 18. Cleaned and painted the ninety-two bluebird boxes on my Liberty Route.

JANUARY 20. Five bald eagles are wintering south of the Keokuk dam.

JANUARY 23. Killed a guinea hen today, the blood fell on the snow and coagulated. A robin hopped up and made a meal of the hardened blood.

JANUARY 24. Titmice are singing "Peto" today. They are late this spring. Cardinals are singing and so are the Carolina wrens.

JANUARY 31. Report of a melanistic cardinal today. This is the second record I have had in twenty-five years.

FEBRUARY 1. A flock of three hundred rusty blackbirds passed over; also disturbed a flock of Lapland longspurs from the roadside.

FEBRUARY 7. Red-headed woodpeckers have wintered here. I saw several today.

FEBRUARY 11. Bluebirds, robins, and meadowlarks are back. Also saw a lone dove. Think it was a winter resident.

FEBRUARY 13. Put Bluebird Route No. 1 in shape. Cleaned and painted forty-eight boxes.

FEBRUARY 14. Started Bluebird Route No. 4 on old Wolf Ridge road. Added fourteen new boxes.

FEBRUARY 16. There are great flocks of horned larks everywhere about the upland farms. The ice is out of the river.

FEBRUARY 18. Migrant shrikes are back.

FEBRUARY 20. Rain, thunder and lightning today.

FEBRUARY 21. Big flocks of bluebirds have arrived. Also the advance guard of marsh hawks is here.

FEBRUARY 28. Put up another route of bluebird boxes toward Hamilton, thirty-four in all.

MARCH 3. Saw first killdeer.

MARCH 4. Robins and bluebirds are back in full quota. Sparrow hawks are back also. Heard the singing of purple finches today. Many shrikes are back in the hedge rows.

MARCH 6. Great flight of pintail, mallard, and black ducks has passed over.

MARCH 7. Saw an irregular flock of American crossbills. Flickers and red-wings are singing. Saw first white-throats and also jack-snipe. Frogs are singing.

MARCH 8. Robins are singing. Roy Knoepple, Superintendent of Schools at Hamilton, has extended my bluebird route of boxes from Hamilton to Nauvoo by adding forty-three more boxes.

MARCH 11. Saw a wild male ring-necked pheasant in full plumage today.

MARCH 13. Brooks Terrell, biology teacher of Quincy High School, added a new route of bluebird boxes adding thirty boxes from Payson to New Canton, Illinois.

MARCH 19. Saw first grackle. Great flocks of starlings and red-wings are present.

MARCH 21. Grackles are flocking in. Added twenty bluebird boxes on the Perry route.

MARCH 22. The first martins and cowbirds are here. Doves are singing.

MARCH 24. Shoveller ducks have arrived.

MARCH 25. Employed this snowy day to add twenty more blue-bird boxes to the Perry route. The sum total is nearly five hundred boxes in all.

MARCH 26. Great blue herons are back.

APRIL 4. Coots are back; also an increase in herons.

APRIL 5. Kingfishers and phoebes are hunting over the sloughs and creeks.

APRIL 6. A solitary turkey vulture flew over today.

APRIL 7. Lark sparrows and pied-billed grebes are back.

APRIL 8. Bewick's wrens are hunting nesting sites about the sheds. Blue-winged teal are in every wayside ditch. Towhees and fox sparrows are back also.

APRIL 9. Sapsuckers are girdling pine and fruit trees. Today I found the first bluebird egg.

APRIL 11. Snow geese, baldpate, wood ducks, grasshoppers, sparrows, clay-colored sparrows, Henslow's sparrows, swamp sparrows, tree swallows, winter wrens, hermit thrushes, ruby-crowned kinglets are new today.

APRIL 14. Barn swallows are investigating the rafters of my barn.

APRIL 15. Bank swallows just arrived.

APRIL 16. Brown thrashers, water thrush, swifts, chipping sparrows, and cliff swallows are new. Buzzards are laying eggs in the holes along the bottom-land bluffs.

APRIL 17. House wrens came in on the south wind last night. Field sparrows are perched on last year's mullein stalks singing their songs. Fox sparrows left today.

APRIL 18. Myrtle warblers are hunting in the tree tops. Juncos are still here.

APRIL 23. Rose-breasted grosbeaks are singing today and nipping the swelling buds while the first blue-gray gnatcatchers are lipping high up in the tree tops.

APRIL 24. Two beauties arrived today—wood thrushes and the scarlet tanagers.

APRIL 26. Hundreds of red-headed woodpeckers arrived today.

APRIL 27. Little green herons and yellow-headed blackbirds are both new to the swamps today.

APRIL 28. Blue-gray gnatcatchers arrived in numbers today.

APRIL 29. Kingbirds arrived with the warbling vireos.

APRIL 30. Nighthawks are sweeping the skies.

MAY 1. Crested flycatchers, gallinules, dickcissels, and Baltimore orioles are new to the woods, water, and fields.

MAY 3. Upland plovers have selected nest sites on top of grassy ridges. White-throats are singing.

MAY 4. Crested flycatchers are here. Red-eyed vireos and black-throated blue warblers are new. Found a nest with four meadowlark eggs.

MAY 5. Catbirds, yellow warblers, and prothonotary warblers came in today.

MAY 6. Yellow-throats are new.

MAY 7. Bobolinks and chestnut-sided warblers were arrivals.

MAY 8. Wood pewees are singing today.

MAY 12. Orchard orioles finally arrived.

MAY 13. Cuckoos are back.

MAY 14. Hummingbirds are back feeding on the wild columbine.

MAY 15. Nearly every box has young bluebirds. I banded seventy today.

MAY 16. Banded one hundred sixty-five more bluebirds today. Carolina wrens have nest of five eggs in top of my well.

MAY 17. Found several nests with full complements of upland plover eggs.

MAY 20. Young cardinals are out of the nest.

MAY 25. A nest of wood ducks hatches today in Woodland cemetery.

MAY 26. Cottonwood seeds are blowing and hummingbirds are building.

JUNE 6. Bluebirds are starting their second nests.

JUNE 13. Robins have second broods. Hummingbirds have eggs.

JUNE 24. First gathering of blackbirds.

JUNE 25. Young nighthawks are flying.

JULY 7. Poisoning of grasshoppers with poison bran is followed by appearance of dozens of dead grackles and starlings under neighboring trees.

JULY 8. This year there has been a noticeable invasion of mockingbirds; normally, nesting birds are rarities, but this year nearly every farm has a nesting pair. The drift extends as far north as Macomb, LaHarpe, and Dallas City.

JULY 15. Martins are flocking.

JULY 28. Recorded my first Arkansas kingbird although another was reported from Adams County several years ago by Russell Davis, the bird trap builder of Clayton. The new bird sat on a wire and allowed me to study it for five minutes at a twenty foot range.

AUGUST 10. Carolina wren babies are flying.

AUGUST 20. Banded the last of young bluebirds.

AUGUST 31. Found a nest with two miniature doves and another with eggs in it. The hunting season opens tomorrow.

SEPTEMBER 4. Young doves are growing fast. Hope the mother isn't shot.

SEPTEMBER 5. Great flocks of blackbirds are attracted by the corn.

SEPTEMBER 10. A great flight of northern nighthawks went south. The most of our local birds remained.

OCTOBER 4. White-throats are back.

OCTOBER 11. Brown creepers returned today.

OCTOBER 12. Chimney swifts left today.

OCTOBER 13. Killing frost. Great flights of crested cormorants.

OCTOBER 23. The big flight of snow and blue geese went over last night.

NOVEMBER. Quail crop abundant but most birds are very young and small. Evidently the early hatch was disturbed or killed and the second was very late.

DECEMBER. During December I have seen bluebirds nearly every day. A flock of thirty doves and fifty meadowlarks wintered on my farm. Shrikes remained all winter while flickers and red-headed woodpeckers have been common winter visitors. The drift of chickadees which carried our birds west several years ago has made them scarce. Happily they have returned to us this year. The appearance of a Mississippi kite on December 3 was one of the highlights of the winter season. Also a red-tailed hawk in nearly white winter plumage was interesting, but not unusual.*

Quincy.

Episode

I found a dying gull on the sands. It was of a beauty so great it hardly seemed fanciful to regard it as an angel dropped piteously from the sky. It suffered me to lift it. It did not struggle nor show fear. There was, it seemed to me, a look of resignation in its mild eye. What struck me most was its perfection of plumage. Not a feather, not a barb, was stained or sodden. There was, evidently, no wound.

It was an adult Bonaparte's Gull, in winter plumage. On its back and head it wore a mantle of pearl-gray mist; its figure else was white as cherry-bloom in May. Even its snowy breast, which had rested on the wet sand, was immaculate.

I took it home, intending to restore it, if possible. When I lifted it from the robe on which I had laid it, there was a little pool of blood but, mysteriously, not a drop on the bird. Its purity, one felt, was such as to be incapable of stain. The blood must have come from gape or vent but there was no trace of its passing.

I tried to force it to take a morsel of bread dipped in brandy but it resisted; albeit so weakly that it could be seen it was near spent. Then suddenly it raised, spread wide its wings toward heaven and expired. And fancy insisted that the bird, in its final moment, aspired to some bright vision it had seen.

EDWARD R. FORD.

New Smyrna Beach, Fla., Jan. 13, 1938.

*Possibly Krider's Hawk.—ED.

The Abundance of Birds in the Chicago Region

By RUDYERD BOULTON

For many years in this country field studies have been undertaken in an attempt to determine the abundance of birds in a given region. One of the first of such studies was Judd's "Birds of a Maryland Farm," designed primarily to express the relation of birds to agriculture in a limited area. For many years *Bird Lore's* Christmas Bird Census has accumulated abundance figures concerning the status of bird life in a nation-wide scale in early winter. The early attempts to evaluate shifting populations naturally have been improved on in recent years and much progress has been made, particularly with game birds. Persons interested in ducks and bob-white, while probably no more numerous in the aggregate than those whose primary interest is in non-game birds, are certainly better organized and have more funds for investigation at their disposal.

The Chicago Ornithological Society has in the past few years concentrated much effort on this problem. Field notes of members systematically made and reported have been the means by which comparative figures on the abundance of certain species have been published in the Chicago report of *Bird Lore's* Season Department. The Purple Martin Census taken two years ago yielded results of value and Beecher's studies on the abundance of birds in the Fox Lake District are a model of their kind.

Last year, in order to add further data to our growing knowledge of this important field, a questionnaire in the form of a contest was prepared. Contributors to this listed (by estimation from their experience with birds in the Chicago Region) species in the order of their abundance for five distinct ecological habitats. The results were treated statistically so that the average of all lists was regarded as normal. The deviation of each individual from the normal was his individual score. The lower the score, the closer he had come to the normal, or average.

Naturally, such a method gives but one result. That is, *what species the most experienced and competent bird students in the Chicago Region collectively regard as most abundant*. This may or may not be close to the actual truth, depending on the competence with which the estimations were made and on the uniformity of the estimator's conception of the different habitats. However, such straws as this show how the wind blows and can serve as useful yardsticks for evaluating results obtained by other methods.

The results of the questionnaire were as follows, the most common bird being regarded as No. 1, the next No. 2, and so on:

OPEN WATER (Lake Michigan, inland lakes, large rivers)

- | | |
|---------------------|---------------------------|
| 1. Herring Gull | 5. Red-breasted Merganser |
| 2. Lesser Scaup | 7. American Merganser |
| 3. Coot | 8. Mallard |
| 4. Bonaparte's Gull | 9. Goldeneye |
| 5. Blue-winged Teal | 10. Common Tern |

(Two birds tied for fifth.)

BEACH (sand beach and mud flats)

- | | |
|---------------------------|-----------------------|
| 1. Spotted Sandpiper | 5. Lesser Yellowlegs |
| 2. Killdeer | 7. Least Sandpiper |
| 3. Sanderling | 8. Pectoral Sandpiper |
| 4. Herring Gull | 9. Solitary Sandpiper |
| 5. Semipalmated Sandpiper | 10. Bonaparte's Gull |

(Two birds tied for fifth.)

MARSH (sloughs, reeds, cat-tails and wet meadows)

- | | |
|---------------------------|-------------------------------|
| 1. Red-winged Blackbird | 9. Wilson's Snipe |
| 2. Long-billed Marsh Wren | 10. King Rail |
| 3. Sora Rail | 11. Northern Yellowthroat |
| 4. Coot | 11. Pied-billed Grebe |
| 5. Black Tern | 13. American Bittern |
| 6. Swamp Sparrow | 14. Least Bittern |
| 7. Green Heron | 15. Black-crowned Night Heron |
| 8. Florida Gallinule | 15. Song Sparrow |

(Two birds tied for eleventh and fifteenth each.)

OPEN COUNTRY (upland, pasture, prairie, field)

- | | |
|------------------------|--------------------------|
| 1. Meadowlark | 11. Killdeer |
| 2. Field Sparrow | 12. Tree Sparrow |
| 3. Bobolink | 13. Flicker |
| 4. Prairie Horned Lark | 14. Savanna Sparrow |
| 4. Goldfinch | 15. Purple Martin |
| 6. Cowbird | 16. Kingbird |
| 6. Vesper Sparrow | 16. Ring-necked Pheasant |
| 8. Song Sparrow | 18. Grasshopper Sparrow |
| 9. Starling | 19. Lapland Longspur |
| 10. Crow | 20. Dickcissel |

(Two birds tied for fourth, sixth and sixteenth each.)

WOODLAND (woods, orchards, thickets)

- | | |
|--------------------|----------------------------|
| 1. Robin | 11. Catbird |
| 2. Starling | 12. Downy Woodpecker |
| 3. Bronzed Grackle | 13. Mourning Dove |
| 4. Blue Jay | 14. Crow |
| 5. English Sparrow | 15. Cardinal |
| 6. House Wren | 16. Tree Sparrow |
| 7. Song Sparrow | 17. Red-headed Woodpecker |
| 8. Flicker | 18. White-throated Sparrow |
| 9. Junco | 19. Bluebird |
| 10. Brown Thrasher | 20. Black-capped Chickadee |

By the method of computation for individual lists, zero was the best possible score (no deviation from the normal) and 1457 was the worst possible score (complete and total deviation from the normal). It is perhaps significant that the three highest scores were made by persons with a background of long and serious field work in the region. They were remarkably close together; i.e., 421, 422 and 429. The eight highest scores were under 500, which indicates an average agreement on approximately two-thirds of the list.

The red-winged blackbird was the only bird placed at the head of a list by every person contributing. The other four most abundant birds—herring gull, spotted sandpiper, meadowlark and robin—were placed at the head of their lists by 85% of the contributors. Some birds found places on two or more lists, indicating that they were regarded as important elements of the avifauna of more than one habitat. They were:

Song Sparrow—7th in Woodland, 8th in Open Country, 15th in Marsh

Herring Gull—1st in Open Water, 4th in Beach

Bonaparte's Gull—4th in Open Water, 10th in Beach

Coot—3rd in Open Water, 4th in Marsh

Flicker — 8th in Woodland, 13th in Open Country.

Tree Sparrow—12th in Open Country, 16th in Woodland

Starling—2nd in Woodland, 9th in Open Country

Killdeer—2nd in Beach, 11th in Open Country

Crow—10th in Open Country, 14th in Woodland

The five habitats selected do not, of course, completely cover the range of habitats in the Chicago Region. Swallows, for example, with the exception of the purple martin, did not place on the lists. Tree swallows and bank swallows certainly should be considered among the seventy-five most abundant species in the region. Almost without exception, each species has its own ecological niche and the five categories used are, at best, composites of general habitat types. It is to be hoped that further work along different lines will help to prove or disprove the estimations of relative abundance that this investigation has produced.

Field Museum of Natural History.

The Sandpipers of Lincoln Park

BY WILL DREUTH

There have always been a few sandpipers in Lincoln Park ever since I began studying birds there a number of years ago. The real increase among the members of this group, however, began with the filling in of the new land north of Diversey Parkway, and reached its climax in number of species and individuals during the progress of the work at the foot of Montrose Avenue in 1932. This area was being filled in with tin cans, garbage, cinders and other debris of a large city, making it a most unsavory spot; but the birds thought otherwise. It was a gathering place for gulls, plovers, turnstones and sandpipers. Few people came here and there was an abundance of food. Gradually this area changed; the odorous garbage was first covered with a layer of clay and later with sand, and a new beach for bathers was formed. All these changes cut off, to a great extent, the supply of food and so lessened the number of shore birds. At the present time, therefore, most of the birds are found at the shore-line and the sandy beach back of it.

Of course the members of this family are not confined to Montrose Beach. Small numbers of woodcock, Wilson's snipe, spotted and solitary sandpipers, yellow-legs and sanderlings may be found in suitable places throughout the length of the park.

In this article I shall confine myself to the period of 1932-1937 as this time was the most prolific both in individuals and species. The dates of occurrence are the extremes for both spring and fall for the whole period under consideration; this also applies to the number of individuals seen in one day and number of times observed in the year. Thinking that a few comments on the field identification of the more difficult species would be of interest, I have mentioned some of the characters that I have found useful.

WOODCOCK. This species has come to the park every spring since 1932 but is not common. I have seen from one to four during each spring migration but never more than one in one day. The extreme dates are March 15 to May 21.

WILSON SNIPE. The snipe comes regularly each year, sometimes in spring only, and then again in fall only; in some years, both spring and fall. One or two birds are the most seen in one day, four to nine times each year, more often in the fall. April 13-30. August 30-November 7.

HUDSONIAN CURLEW. A rare fall migrant. Only one seen in 1934; seen on two occasions in 1937, one individual each time. September 1, 12, 18.

UPLAND PLOVER. A rare migrant observed in the park only in 1937. One bird only was seen on each of the three following dates: May 26, September 10 and 24.

SPOTTED SANDPIPER. A common sandpiper in the park both spring and fall; it probably nests within its limits. One to thirteen indi-

viduals seen in one day; recorded ten to fifty-nine times each year. April 18-May 31. August 1-October 1.

SOLITARY SANDPIPER. A regular migrant both spring and fall. One to four birds have been seen per day. Observed two to seventeen times each year. April 26-May 16. August 5-September 20.

WESTERN WILLET. A rare migrant seen only in 1933 and 1936; two times each year; one to four birds on each day. April 30-May 13. August 2-October 22.

GREATER YELLOWLEGS. Spring and fall migrant, more common in fall. One to seven birds seen per day; recorded one to four times each year. May 19. August 2-October 22.

LESSER YELLOWLEGS. A regular migrant in fall only. One to two birds seen each day and occurring one to ten times each year. August 1-October 22.

The two species of yellowlegs do not always occur under circumstances that permit easy separation when seen alone, though extremes in size are readily distinguishable under favorable conditions. The best field mark is the bill: long and stout in the greater, shorter and more slender in the lesser. Considering the two species together, the extreme dates are August 1-October 26.

PECTORAL SANDPIPER. Migrants come both spring and fall, but are more common in fall. From one to ten individuals were seen on each day; observed from four to nineteen times each year. April 17-May 11. August 1-October 24.

This species is easily separable from any others with which it may be confused by the dull yellow legs. It has two "kreek" calls, one high-pitched, the other low. I have heard a single bird give both.

WHITE-RUMPED SANDPIPER. A rare migrant in the park, seen only in the fall of 1936; one bird only on August 15 and another on October 10. One was plain gray with an unmarked back, the other had a "scaled" back and some buff on the breast making it resemble the Baird's sandpiper. This species is easily distinguished from others that are similar by the white rump and the call, a faint squeek very different from the "kreek" of the pectoral and Baird's sandpiper.

BAIRD'S SANDPIPER. A common species in the fall. One to sixteen birds seen each time; observed from four to forty-three times each year. August 5-November 11.

The "kreek" call, black legs and dark rump will separate it from the white-rumped; the black legs, scaled back and gray-streaked buff head and breast distinguish it from the pectoral sandpiper. Every fall I have seen some individuals that have a minimum of buff on the head and breast; thus they are grayer in these areas and resemble the white-rumped more closely.

LEAST SANDPIPER. Rare in spring, common in fall. One to thirty birds seen each day; recorded three to forty-seven times a year. May 10. August 8-October 3.

The only least sandpiper I have seen in the spring had bright greenish-yellow legs. The legs of fall birds are dull olive green, but

this is apparent only in good light and at a short distance. Under other circumstances, they appear to be an indefinite dusky color. The slender bill is slightly decurved at the tip, as can be determined when the bird holds its head still.

RED-BACKED SANDPIPER. Uncommon in the spring, more common in the fall. One to fifty birds seen each day; observed three to twenty-three times each year. May 10-14. September 25-November 11.

DOWITCHER. An uncommon migrant. One to ten birds came each day; seen two to five times each fall. May 18. August 6-September 11.

In fall some birds have pinkish-brown breasts, others are in the gray fall plumage.

SEMI-PALMATED SANDPIPER. A spring and fall migrant, more common in the fall. One to fifty birds occur each day; seen nine to sixty-nine times each year. May 18-28. August 1-22.

The short, stout bill, thicker at the base, and the black legs are usually sufficient for separating this bird from other small species. However, some individuals have grayish legs and thinner bills than others; they then resemble least sandpipers. The semi-palmated is usually a grayer bird than the least, but occasionally a semi-palmated occurs with a brownish back. The semi-palmated has a straight bill without the decurved tip.

WESTERN SANDPIPER. A rare fall migrant which was first noticed in 1932; also seen in 1933, 1934, 1936, and 1937. Single birds only were seen on each day. Observed one to three times in the years cited. August 24-September 3.

The western sandpiper closely resembles the semi-palmated, but the bill is longer and decurved at the tip. All that I have seen have traces of bright chestnut on the wing.

BUFF-BREASTED SANDPIPER. An uncommon fall migrant, but seen each year since 1932. One to three birds appeared on each day; has been noted one to eight times each year. August 25-September 25.

The legs of this species are usually yellow, but one had distinctly greenish legs and another had grayish legs. The call is a low squeak.

SANDERLING. A spring and fall migrant in the park; very common in the fall. One to seventy-nine individuals noted per day; observed thirteen to eighty-eight times per year. May 7-28. August 1-November 16.

In August many have reddish-brown breasts, others arrive with fall plumage and many of these have contrasting black shoulder patches.

1845 Oakdale Avenue, Chicago.

A Proposed Conservation Project

While studying the thousands of migratory waterfowl at the Orland Wildlife Refuge near Orland Park last fall, I noticed that there was insufficient water in the south arm of the slough to make it attractive to ducks or to make food available to them. Upon investigation I found that the outlet of the slough into the main body of water is only about ten or twelve feet wide. By placing an earth-fill dam about twenty-five or thirty feet long across the channel forming, in a natural manner, rapids not too steep for fish to ascend, the water level could be raised a foot or less, as seemed advisable. This would make a hundred acres or more of marsh available to the waterfowl.

In the spring there is sometimes enough water in this area but a dam would insure a constant water level, promote the growth of aquatic duck-food plants, and make nesting less hazardous for water birds. At the present time there is not enough permanent water in the area to sustain fish and consequently the intermittent marsh constitutes a mosquito breeding place. Raising the water level would clear up this situation.

In an interview with Robert Mann, Maintenance Superintendent of the Forest Preserves, it was pointed out that there are some sewers from Orland Park emptying into the slough at 143rd Street and that raising the water level might back up these sewers and also might flood some private property south of 143rd Street. Upon inquiry I was told that the town does not have a sanitary sewage system but that each house is supposed to have a septic tank, but probably does not, and that this creates some nuisance. I later visited the culvert under 143rd Street where the small stream forming the source of the slough passes under the road. Obviously the water contained untreated sewage. It appeared, however, that raising the water level one foot or less would do no damage. There is sufficient drop from any near-by houses so that if the drainage of tiles were interfered with, their outlets could be raised. The amount of private land that might be flooded would be very small and is apparently good for nothing else.

On January 13 I had an opportunity to talk to the Orland Park Women's Club, at the invitation of Mrs. George B. Ward, Conservation Chairman of the 3rd District Federated Women's Clubs. I was pleased to have this opportunity because I understood that many people of Orland Park were not in sympathy with the setting aside of the slough as a wildlife refuge and I felt that I could show them how it is, or could be, a great asset to their community. I suggested that by flooding the marsh which extends southward to the road on the north side of the village, large flocks of waterfowl could be brought practically into town, motorists would be able to see them from the road, and the refuge would become well known and attract many visitors.

When the wild geese are at Jack Miner's place in Kingsville, Ontario, more people cross the Ambassador Bridge from Detroit into

Windsor to visit the Jack Miner Sanctuary than for any other reason. On Sunday afternoons there are often as many as a thousand people at one time. The numbers of visitors to the Jackson Park Bird Sanctuary is also an indication of the popularity of such places when they are easily accessible.

Preceding me on the program was the owner of a bus line which serves commuters between Orland Park and Chicago. He had considered discontinuing service, at least on certain runs, because of the small number of passengers at present. At the present time few people know about the Orland Wildlife Refuge because it is comparatively inaccessible, and little dream that such a beautiful wildlife area could exist so close to Chicago. This project has great possibilities for education. Conservation needs publicity. I suggested that the bus line might help advertise it, notify conservation groups as to schedules during migration periods so that schools and other groups might charter buses to bring their children there. Furthermore, I suggested that the present sewer system might be a menace to health as well as a menace to wildlife, and that flooding the area would not only beautify the town but help to clear up the mosquito situation.

There seem to be few things that an enthusiastic women's club can not accomplish and if they sponsor this project I believe they will produce gratifying results.

Robert E. Smart,
Jackson Park Bird Sanctuary, Chicago.

A Summer Bird List from Warren Woods, near Sawyer, Michigan

For several years I have spent two weeks in late June and July at Tower Hill Camp near Sawyer, Michigan, where one can study many natural features from pioneer vegetation among the dunes of Lake Michigan to a climax forest of about one hundred acres known as Warren Woods, now supervised, I believe, by the University of Michigan. The Galien River, a small crooked stream with huge sycamores along the bank, skirts one edge of the area.

Many of the beech and sugar maples are five hundred years old, one hundred twenty-five feet in height, and six feet in diameter. The seedlings of the ground cover are almost exclusively maples. The beeches have an abundance of seeds but are not reproducing as are the maples. Spice bush, witch-hazel, papaw, and bladder nut are common shrubs. White trillium, partridge berry, maidenhair, Christmas fern, and the evergreen wood fern thrive on the bed of leaves. The wood frog (*Rana cantabrigensis*) proves as interesting to most visitors as the giant trees. While searching among the leaves for these gold-spectacled frogs, one is likely to encounter woodcocks probing the

damp earth, and sometimes they stagger along the river bank in plain view of the spectators above.

Since my visits to the region are usually with groups of about a hundred people, little can be accomplished in the identification of birds. Then too, many wet spots afford places for myriads of mosquitoes.

On June 30 and July 1, 1937, I was able to spend three hours each morning in quiet observation. Merrill Isely, an accurate bird student once of Kansas but now of Gaziantep, Turkey, assisted in taking the census.

The following birds were identified as summer residents: Green Heron, Red-shouldered Hawk, Bob-white, Woodcock, Spotted Sandpiper, Mourning Dove, Chimney Swift, Ruby-throated Hummingbird, Belted Kingfisher, Flicker, Red-bellied Woodpecker, Kingbird, Crested Flycatcher, Phoebe, Acadian Flycatcher, Least Flycatcher, Wood Pewee, Olive-sided Flycatcher, Crow, Tufted Titmouse, White-breasted Nuthatch, House Wren, Carolina Wren, Robin, Wood Thrush, Yellow-throated Vireo, Red-eyed Vireo, Warbling Vireo, Black and White Warbler, Yellow Warbler, Cerulean Warbler, Ovenbird, Louisiana Water Thrush, Redstart, Meadowlark, Orchard Oriole, Bronzed Grackle, Cowbird, Scarlet Tanager, Cardinal, Rose-breasted Grosbeak, Indigo Bunting, Goldfinch, Vesper Sparrow and Song Sparrow.

Esther A. Craigmile, Maywood.

A Florida Bird List for New Year's Day

Perhaps this ought to be called a "Lazy Lady's List" for it is not a Christmas list and neither is it one that covers all the birds in the country 'round as a Christmas list is supposed to do. I was visiting Mr. and Mrs. Charles W. Melcher whose cozy home is in a true Florida jungle, three miles from the nearest habitation at Homosassa Springs, about one hundred miles north of Tampa. Making myself comfortable on a couch on the porch, I faced south with the river about fifteen feet away and the landscape stretching to the east, south and west, giving a view of a distance varying from a quarter of a mile to a mile. Across the river the rushes extend back almost a mile, with palmettos here and there, and then the jungle beyond. So, on the couch with my books and binoculars, I just played lazy, not caring whether or not I ever moved. One time during the day, however, I drove about five miles on an errand with my hostess.

Here is my day's list: Anhinga 10; Pied-billed Grebe 25; Florida Cormorant 50; Ward's Heron 6; American Egret 5; Louisiana Heron 2; Snowy Egret 15; Black-crowned Night Heron 50; Mallard 15; Baldpate 50; Turkey Vulture 25; Red-shouldered Hawk 1; Marsh Hawk 1; Osprey 2; Sparrow Hawk 3; Florida Gallinule 10; American Coot 25; Killdeer 6; Solitary Sandpiper 1; Mourning Dove 5; Horned Owl 1; Kingfisher 2; Red-bellied Woodpecker 3; Pileated Woodpecker 1; Phoebe 2; Tree Swallow 50; Blue Jay 3; Florida Crow 12; Fish Crow 1; Tufted Titmouse 2; Florida Wren 1; Mockingbird 10; Robin 50; Bluebird 5; Loggerhead Shrike 2; Myrtle Warbler 4; Palm Warbler 6; Florida Yellowthroat 1; Meadowlark 3; Red-winged Blackbird 100; Boat-tailed Grackle 6; Florida Grackle 15; Cardinal 5; White-eyed Towhee 1; Savannah Sparrow 1. Total, 45 species; 594 individuals.—Catherine A. Mitchell.

Christmas Census of 1937

Chicago, Cook County, Ill. Lincoln Park to Rosehill Cemetery to Niles Center and Dam no. 2, Desplaines River, December 25, 7:30 A. M. to 3:30 P. M. Clear, very little snow, no wind, temperature 28 degrees to 37 degrees. Four miles on foot, thirteen miles by car. American Golden-eye 500; White-winged Scoter 1; Old-squaw 3; American Merganser 250; Red-breasted Merganser 1; Red-tailed Hawk 1; American Rough-legged Hawk 1; Sparrow Hawk 4; Ring-necked Pheasant 1; Herring Gull 150; Ring-billed Gull 200; Belted Kingfisher 1; Downy Woodpecker 2; Blue Jay 5; Eastern Crow 15; Black-capped Chickadee 14; White-breasted Nuthatch 1; Cedar Waxwing 2; Starling 400; English Sparrow 25; Bronzed Grackle 2; Cardinal 8; Slate-colored Junco 2; Eastern Tree Sparrow 9. Total 25 species, 1602 individuals. Most of the ducks were found hugging the shore at the north end of Lincoln Park, at the foot of Foster Avenue. The scoter, a female, was in Belmont Harbor. The kingfisher was found along the Drainage Canal which was full of ice. The bronzed grackles were in Rosehill Cemetery.—Clarence Palmquist.

Blue Island, Cook County, Ill. In vicinity of Blue Island, Oak Hill and Mt. Greenwood banding stations. December 22 to 24. Snow here and there. Temperature 20 to 40 degrees. Birds listed show largest number of individuals seen in one day. Sharp-shinned Hawk 1; Marsh Hawk 1; Sparrow Hawk 1; Herring Gull 4; Hairy Woodpecker 1; Downy Woodpecker 10; Blue Jay 8; Crow 2; Chickadee 4; Tufted Titmouse 7; White-breasted Nuthatch 5; Brown Creeper 1; Starling 400; Rusty Blackbird 1; Cardinal 10; Purple Finch 2; Junco 75; Tree Sparrow 15; Fox Sparrow 1. Total 19 species. Two robins were seen in Blue Island on December 5, (Wood). A hermit thrush and a robin were seen on December 15 at Marley, Ill., Will County. (Bartel)—Alfred H. Reuss Jr., and Karl E. Bartel.

Orland Park, Cook County, Ill. Orland Wildlife Preserve. December 26, 2:30 to 4:30 P. M. Cloudy; snow here and there. Southwest wind, temperature 31 degrees. Two miles on foot. Hairy Woodpecker 1; Downy Woodpecker 6; Black-capped Chickadee 3; White-breasted Nuthatch 2; Brown Creeper 1; Starling 5; Cardinal 5; Tree Sparrow 150; Swamp Sparrow 3. Total 9 species, 176 individuals estimated.—Karl E. Bartel.

Park Ridge, Cook County, Ill. Along the Desplaines River between Lawrence Avenue and Touhy Avenue and over adjacent country. About eight hours in the field on foot on December 27 and 30. Weather warm, dull and misty on both days. Red-tailed Hawk 1; Red-shouldered Hawk 2; Rough-legged Hawk 1; Sparrow Hawk 1; Pheasant 12; Herring Gull 10; Hairy Woodpecker 3; Downy Woodpecker 7; Blue Jay 2; Crow 40; Black-capped Chickadee 25; Tufted Titmouse 3; White-breasted Nuthatch 2; Starling 40; English Sparrow 150; Rusty Blackbird 3; Cardinal 17; Slate-colored Junco 10; Tree Sparrow 175; Song Sparrow 1; Lapland Longspur or Snow Bunting 1 (heard). Total 21 species.—Aulden D. Coble, Donald Duncan.

Lisle, DuPage County, Ill. Morton Arboretum. December 31, 10 A. M. to 2 P. M. Southwest wind, cloudy. Red-shouldered Hawk 1; Ring-necked Pheasant 2; Herring Gull 2; Ring-billed Gull 2; Eastern Mourning Dove 1; Short-eared Owl 1; Downy Woodpecker 3; Blue Jay 4; Eastern Crow 25; Black-capped Chickadee 6; Tufted Titmouse 2; White-breasted Nuthatch 3; Brown Creeper 1; Starling 20; English Sparrow 25; Cardinal 12; Eastern Purple Finch 3; Northern Pine Siskin 12; Eastern Goldfinch 1; Slate-colored Junco 50. Total, 20 species.—Esther A. Craigmile.

Fiatt, Fulton County, Ill. A list made on a trip within two and one-half miles of Fiatt. December 26. Weather clear in the morning and over-

cast in the afternoon, temperature 20 to 42 degrees, light southeast wind. Red-shouldered Hawk 2; Marsh Hawk 1; Eastern Mourning Dove 16; Barred Owl 1; Flicker 1; Red-bellied Woodpecker 6; Red-headed Woodpecker 15; Hairy Woodpecker 1; Downy Woodpecker 2; Blue Jay 26; Eastern Crow 35; Black-capped Chickadee 32; Tufted Titmouse 2; Starling 48; English Sparrow 67; Cardinal 12; Eastern Goldfinch 2; Common Redpoll 3; Slate-colored Junco 83; Eastern Tree Sparrow 237; Song Sparrow 2. Total, 22 species.—Harold Ault.

Lisle, DuPage County, Ill. Morton Arboretum. December 30, 10 A. M. to 1 P. M. Cloudy, temperature 30 to 32 degrees, southwest wind. Red-tailed Hawk 1; Screech Owl 1; Downy Woodpecker 4; Blue Jay 5; Eastern Crow 9; Black-capped Chickadee 8; Tufted Titmouse 2; White-breasted Nuthatch 2; Starling 10; English Sparrow 30; Cardinal 2; Northern Pine Siskin 11; Slate-colored Junco 24; Eastern Tree Sparrow 6. Total, 14 species.—Benjamin T. Gault Bird Club, Mrs. Walter Stofer, President, Mrs. S. H. Leuck, Secretary.

Lisle, DuPage County, Ill. Morton Arboretum. December 25. 12 P. M. to 4:00 P. M. Light clouds, snow here and there. Light west wind, temperature 30 degrees. Four miles on foot. Marsh Hawk 2; Sparrow Hawk 1; Ring-necked Pheasant 2; Herring Gull 2; Snow Owl 1; Flicker 1; Hairy Woodpecker 3; Downy Woodpecker 1; Crow 25; Chickadee 4; White-breasted Nuthatch 3; Northern Pine Siskin 10; Goldfinch 1; Red Crossbill 5; White-winged Crossbill 3; Junco 250; Tree Sparrow 5; Song Sparrow 3. Total 19 species, 322 individuals.—Karl E. Bartel, Alfred H. Reuss, Jr., and Sidney Camras.

Lisle, DuPage County, Ill. Morton Arboretum. Same area covered December 25, 26 and January 1. Fifteen hours afield. Temperature 25-35 degrees. Ground covered with icy crusts on 25th and 26th; bare on 1st. Field trip of 25th made with C. T. Clark and T. J. Nork; latter two dates observer alone. Of species observed on more than one day, numbers of individuals shown constitute single highest daily figure. Cooper's Hawk 1; Red-tailed Hawk 1; Red-shouldered Hawk 2; Hawk (Rough-leg, dark phase?) 1; Ring-necked Pheasant 3; Owl (Great-horned?) 1; Long-eared Owl 1; Hairy Woodpecker 3; Downy Woodpecker 4; Horned Lark 3; Blue Jay 6; Crow 50; Black-capped Chickadee 8; Tufted Titmouse 3; White-breasted Nuthatch 3; Robin 3; Golden-crowned Kinglet 4; Cedar Waxwing 2; English Sparrow 6; Red-wing (flock) 11; Cardinal 10; Purple Finch 12; Red-poll (flock) 6; Pine Siskin (flock) 17; Goldfinch 8; White-winged Crossbill 2 (one adult female and one immature; observed on the 25th; studied at leisure by all three observers; approached within 8 feet); Slate-colored Junco 50; Tree Sparrow 28; Song Sparrow 1; Lapland Longspur (flock) 8. Total 28 species, 248 individuals; highest daily totals accumulated on 26th: 23 species, 237 individuals.

Just before dusk, as I walked slowly along a path through one of the spruce groves, examining each tree for owls, I suddenly found myself face to face with one no more than four feet away. All I could see through the thick spruce branches were two shiny eyes and a rusty face. Taking a few steps backwards and to the side, I obtained a full view and plainly saw that it was a long-eared owl. It stood erect with its two long ears pointing straight upward; the rusty, black-bordered face contrasted mildly with the grayness of the remaining plumage. Soon it took wing; the flight seemed unsteady and, as far as I could see, did not have the lilting, easy beat of the short-eared owl's flight. On wing, it appeared surprisingly larger than one would surmise from observation while it was perched. I followed and flushed the owl three times before a Cooper's hawk flew overhead and drew my attention away.—Frank A. Pitelka.

Glen Ellyn and vicinity, DuPage County, Ill. December 28, 10 A. M. to 4 P. M. Clear, temperature 36 degrees, northeast wind. Red-shouldered Hawk 1; Ring-necked Pheasant 1; Flicker 1; Hairy Woodpecker 2; Downy Woodpecker 10; Blue Jay 2; Eastern Crow 4; Black-capped Chickadee 8; Tufted Titmouse 4; White-breasted Nuthatch 4; Red-breasted Nuthatch 2; Brown Creeper 1; Robin 2; Starling 6; English Sparrow 27; Cardinal 6; Eastern Goldfinch 1; Slate-colored Junco 17; Eastern Tree Sparrow 30. Total, 19 species.—Benjamin T. Gault Bird Club, Mrs. Walter Stofer, President, Mrs. S. H. Leuck, Secretary.

Waukegan, Lake County, Ill. December 26. Weather mild; temperature 26 degrees, southwest wind. Mallard 17; Baldpate 1; Lesser Scaup Duck 200; American Golden-eye 100; Old-squaw 2; Red-breasted Merganser 50; Ring-necked Pheasant 5; American Coot 2; Herring Gull 2250; Flicker 1; Downy Woodpecker 2; Blue Jay 2; Eastern Crow 12; Black-capped Chickadee 2; Robin 1; Starling 500; English Sparrow 600; Eastern Red-wing 1; Cardinal 2; Eastern Purple Finch 5; Slate-colored Junco 50; Eastern Tree Sparrow 30; White-throated Sparrow 1; Eastern Fox Sparrow 4. About 1000 ducks out too far in Lake Michigan to identify species. Total, 24 species.—William I. Lyon.

Joliet, Will County, Ill. Pilcher Park Arboretum. December 26, 11:30 A. M. to 2:15 P. M. Cloudy, snow here and there, southwest wind, temperature 31 degrees. Seven miles by auto and four miles on foot. Red-shouldered Hawk 1; Sparrow Hawk 1; Bob-white 4; Herring Gull 1; Downy Woodpecker 1; Blue Jay 2; Starling 25; Goldfinch 3; Junco 2. Total 9 species, 40 individuals.—Karl E. Bartel.

Lake Geneva, Walworth County, Wis. December 26, 9:30 A. M. to 4:30 P. M. Clear, two inches of snow underlaid by sleet; no wind; temperature 32 degrees. Lake frozen over except at west end. Around entire lake by car, stopping at suitable localities for walks; twenty-five miles by car, four miles on foot. Canada Goose 500; Mallard 4; Black Duck 3; Canvas-back 1; Lesser Scaup Duck 50; American Golden-eye 250; Hooded Merganser 11; American Merganser 1; Red-tailed Hawk 2; Sparrow Hawk 2; Ring-necked Pheasant 18; American Coot 2500; Herring Gull 35; Ring-billed Gull 2; Belted Kingfisher 1; Red-headed Woodpecker 3; Hairy Woodpecker 2; Downy Woodpecker 4; Blue Jay 7; Eastern Crow 20; Black-capped Chickadee 2; White-breasted Nuthatch 3; Starling 100; English Sparrow 75; Eastern Red-wing 5; Brewer's Blackbird 1; Slate-colored Junco 6; Eastern Tree Sparrow 25; Song Sparrow 8. Total 29 species, 3645 individuals. The Brewer's blackbird, a male, was observed on the ground in a swamp area at fifteen feet. It was entirely black in appearance with dark purple and blue-green iridescence and light yellow iris. No brown in plumage was noted. (Second winter record.) In regard to the Lake Geneva census, though the quantities of water birds may seem large, especially the 2500 coots, if anything, the numbers are understated. As Lake Geneva is a deep-water lake, fed by springs, it freezes over very late, sometimes not at all. The "puddle ducks" are usually found in the small spring-fed creeks (as was the case this time) or in the lake near the mouth of these small creeks. Often Wilson's Snipe have been seen all winter amid these small springs which never freeze over but none were observed this year.—Mr. and Mrs. Clarence Palmquist.

Notes and News

The Nature Study School which will be conducted for the third year by the Garden Clubs of Illinois will be held at the Morton Arboretum, Lisle, Illinois, June 7, 8 and 9.

A Nature Study School in the Dunes of Indiana is being planned by the "Friends of our Native Landscape." It is for the week of the Spring vacation in the Chicago Schools and will be for five days. Further information may be obtained from Miss Eskil, 6016 Ingleside Avenue, Chicago.

The Geneva Lake Summer School of Natural Science will open at Williams Bay, Wisconsin, on June 25 and the session will continue until August 8. The school aims to give first-hand contact with the physiographic features, rock strata, plants and animals of southern Wisconsin; to provide facilities for the study of the habits, habitats and distribution of plant and animal life; and to help students to become acquainted with the stars and to study, by personal observation, simple problems connected with them. For the six weeks the tuition is \$25, and the cost of room and board ranges from \$14 to \$20 per week. For further information address the Director, O. D. Frank, Graduate Education Building, 5835 Kimbark Avenue, Chicago.

The Third Annual Illinois Conservation Week is being planned by Governor Horner, beginning April 17 and running through April 23.

The National Wild Life Week, March 20 to 26, sponsored by the General Wild Life Federation at the recent Baltimore meeting and devoted to raising funds for restoration work in all branches of wild life conservation, has been set aside by proclamation of the President of the United States who has made an earnest appeal to all citizens "to recognize the importance of the problem of conservation of these assets in wild life, and then to work with one accord for their proper protection and preservation."

Stamps bearing pictures of American wild animals, and birds, designed by Jay N. ("Ding") Darling, have gone on sale throughout the nation.

Price List of Literature for Sale—

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FIELD CARDS

Members will find the Field Cards of the Audubon Society and the Chicago Academy of Sciences a great help in keeping their records. As the birds are listed according to the order followed by the check list of the American Ornithologists' Union, it would aid the editor if all reports were submitted on such cards, with a letter giving additional data. The cards are available at the Audubon Society office for ten cents a dozen.

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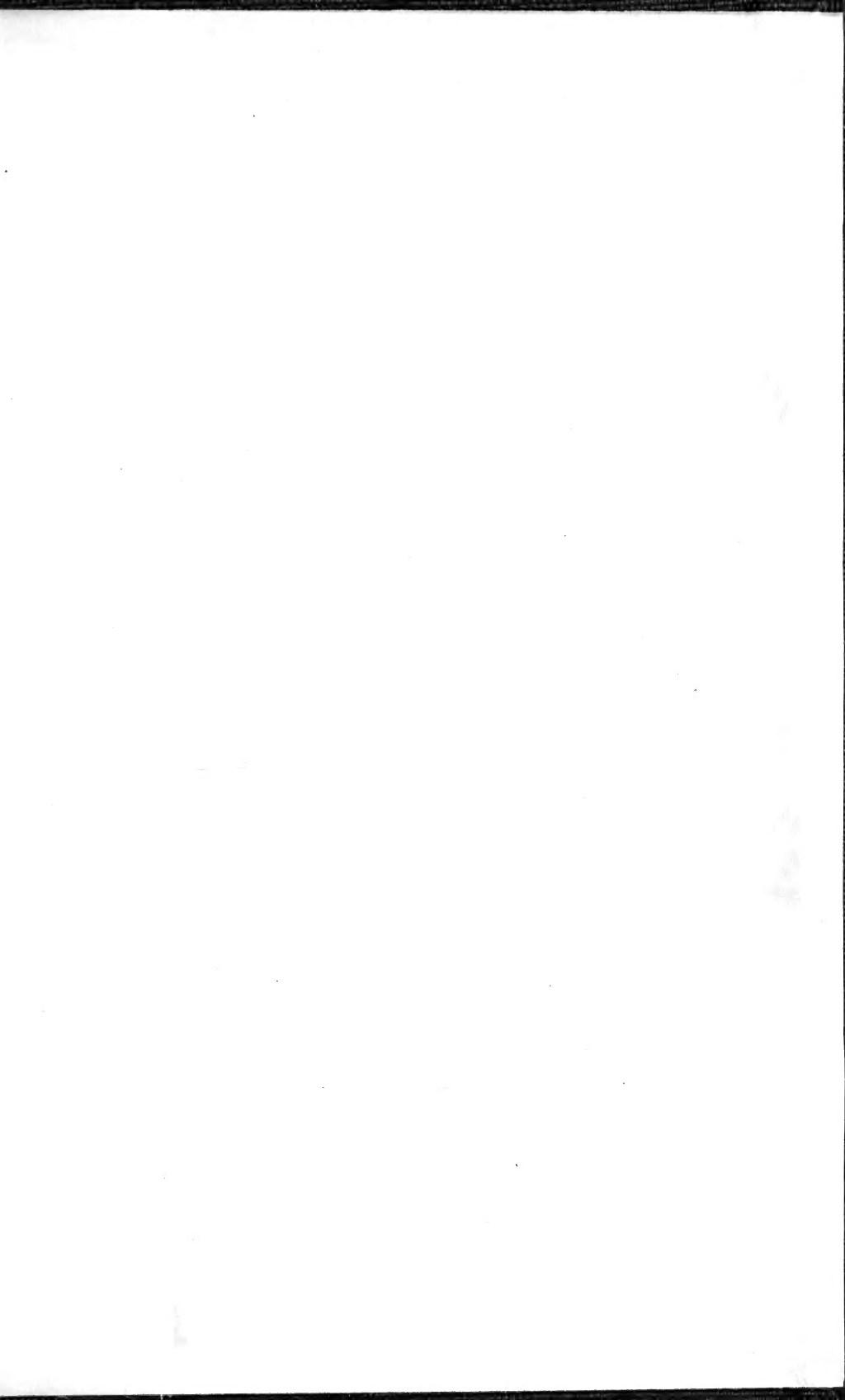
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